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DATA REPORT FOR APOLLO  
MODEL FS-1 WIND TUNNEL  
TEST (SAL-1204)  
(U)

NAS 9-150

~~CONFIDENTIAL~~

8 June 1962



Prepared by

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Aerodynamics Section

Approved by

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D. J. Gildea - Manager  
Flight Technology

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## FOREWORD

The test described herein was conducted under NASA Apollo contract NAS 9-150.

This report was prepared by A. Gillies of the Wind Tunnel Test Group, Space and Information Systems Division of North American Aviation, Inc.

Eduard C. Allen  
E. C. Allen Supervisor  
Wind Tunnel Test



[REDACTED]

#### ABSTRACT

This report presents test results of a 0.02-scale Apollo force model (FS-1) in the NAA Supersonic Aerophysics Laboratory tunnel at Mach numbers from 0.681 to 3.27. A description of the model and model installation is given. Instrumentation and tunnel operating conditions are specified. Six-component force and moment data are presented in tabular form.

This report presents basic wind tunnel test data only in order to make the test results available at the earliest possible date. Analyses and summary of results will be reported later under separate cover.



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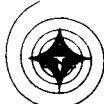
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[Redacted]

## I. INTRODUCTION

Apollo force model FS-1 was tested in the NAA Supersonic Aerophysics Laboratory (SAL) during the period 9 April, 1962 to 26 April, 1962.

The purpose of the test was to study the aerodynamic characteristics of revisions to the launch escape system, utilizing various escape motors and tower structures.

A total of 536 data points were taken at three Mach numbers, 0.681, 1.575, and 3,270 and Reynolds numbers from 1.16 to  $0.54 \times 10^6$ .



## II. MODEL DESCRIPTION

General

The model tested was a 0.02-scale model of various launch escape system configurations. Twenty-four combinations of the twenty-five escape motors and two tower structures were tested.

Two command modules were utilized. They are identical except for the angle between the module axis of symmetry and the centerline of the balance cavity. The different balance cavity angles were used to obtain an angle of attack range of -10 to +30 degrees for the launch escape system.

The model was designed and fabricated by NAA. Refer to Table 1 for a listing of parts used and pertinent drawing numbers.

Launch Escape System

The components that make up the launch escape system are shown in Figs. 2 and 3. The combinations of escape motors and tower structures tested are listed in Section V.



TABLE 1

## Model Nomenclature

<u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>DRAWING NO.</u>	<u>PART NOS.</u>
C	Command Module	NAA 7121-01051	-2 thru -11
T <sub>7</sub>	Tower Structure	CO 7121-019	-
T <sub>11</sub>	"	CO 7121-028	-
E	Escape Motor	NAA 7121-01051	-14,-15, & -17
E <sub>10</sub>	"	"	-14,-17 & -33
E <sub>12</sub>	"	"	-17,-33 & -36
E <sub>14</sub>	"	"	-14,-17,-33 & -35
E <sub>15</sub>	"	"	-14,-17,-33,-35 & -36
E <sub>16</sub>	"	"	-14,-17,-33,-35 & -38
E <sub>17</sub>	"	"	-14,-17,-33,-35,-37 & -38
E <sub>18</sub>	"	"	-14,-17,-33,-42 & -36
E <sub>19</sub>	"	"	-14,-17,-33,-41 & -36
E <sub>20</sub>	"	"	-14,-17,-33,-35, & -39
E <sub>21</sub>	"	"	-14,-17,-33,-43 & -36
E <sub>22</sub>	"	"	-14,-17,-33,-35 & -40
E <sub>23</sub>	"	"	-14,-17,-33,-35, & -44
E <sub>24</sub>	"	"	-14,-17,-33,-35 & -45
E <sub>25</sub>	"	"	-14,-17,-33,-35 & -46
E <sub>26</sub>	"	"	-14,-17,-33,-35 & -47
E <sub>27</sub>	"	"	-14,-17,-33,-35 & -48



<u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>DRAWING NO.</u>	<u>PART NOS.</u>
E <sub>28</sub>	Escape Motor	NAA 7121-01C51	-14,-17,-33,-35 & -49
E <sub>29</sub>	"	"	-14,-17,-33,-35 & -50
E <sub>30</sub>	"	"	-14,-17,-33,-35 & -53
E <sub>31</sub>	"	"	-14,-17,-33,-35 & -54
E <sub>32</sub>	"	"	-14,-17,-33,-35 & -55
E <sub>33</sub>	"	"	-14,-17,-33,-35 & -51
E <sub>34</sub>	"	"	-14,-17,-33,-35 & -52

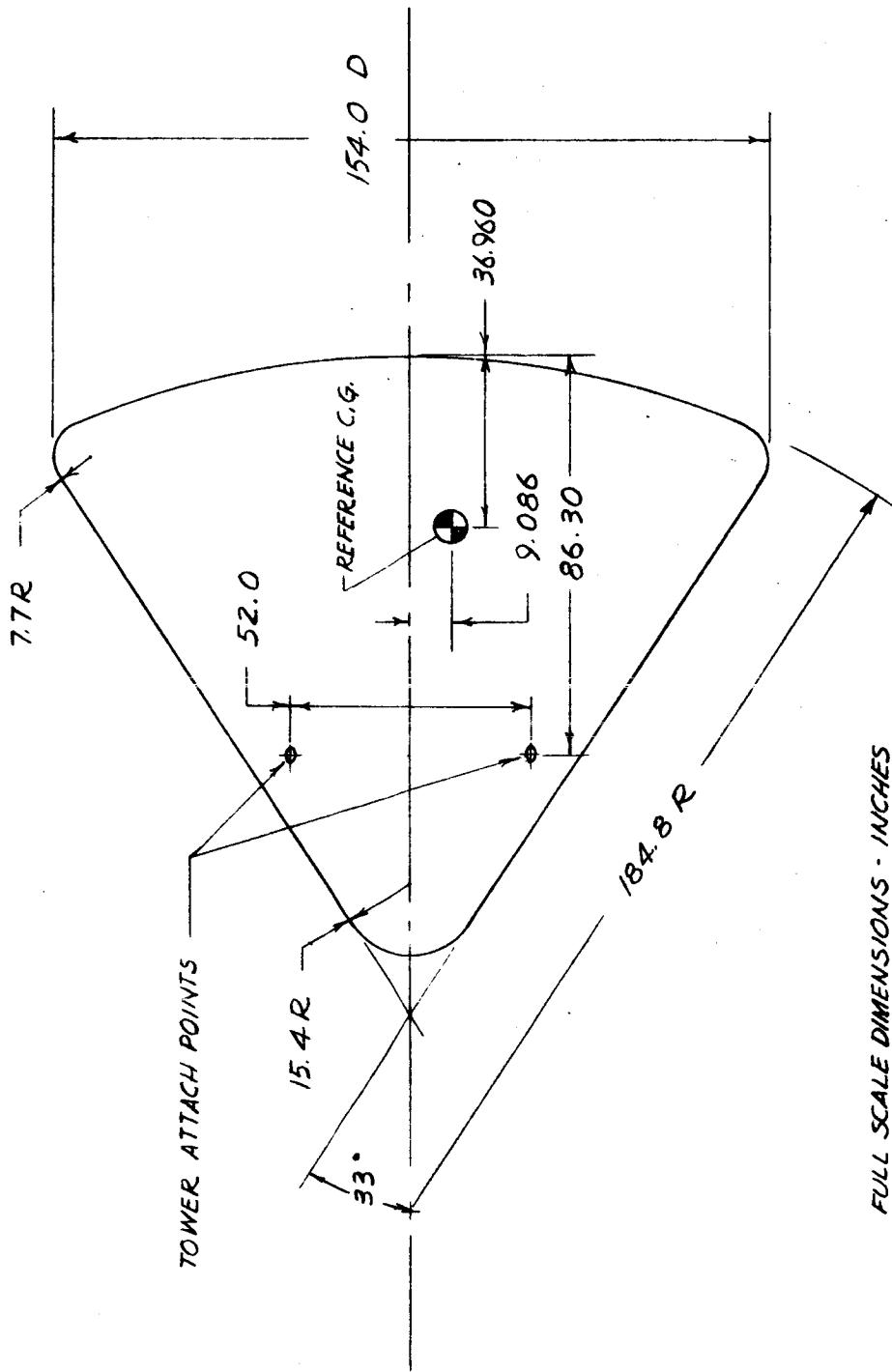
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FIGURE 1 - COMMAND MODULE.

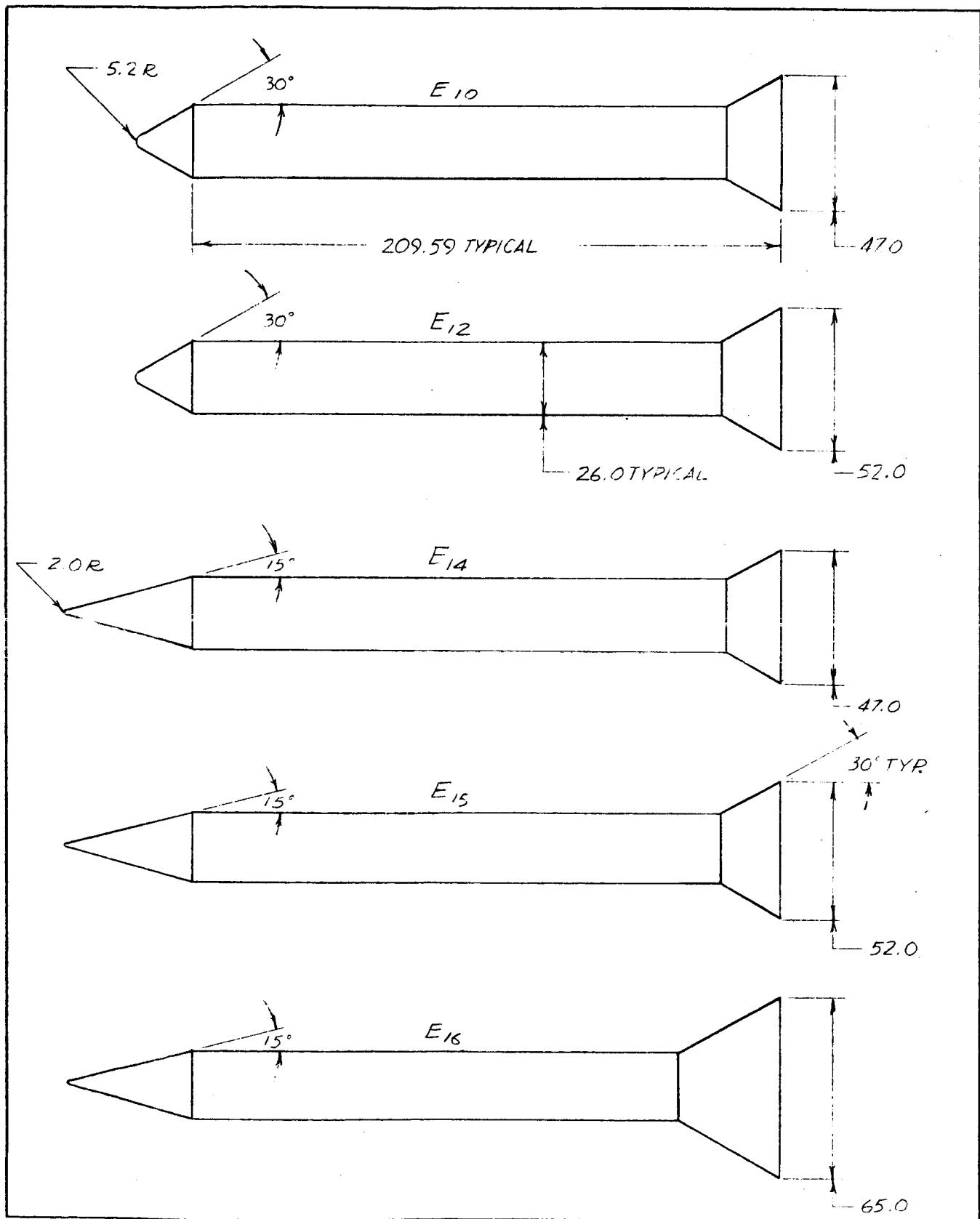
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FIGURE 2 - LAUNCH ESCAPE SYSTEM, ESCAPE MOTORS

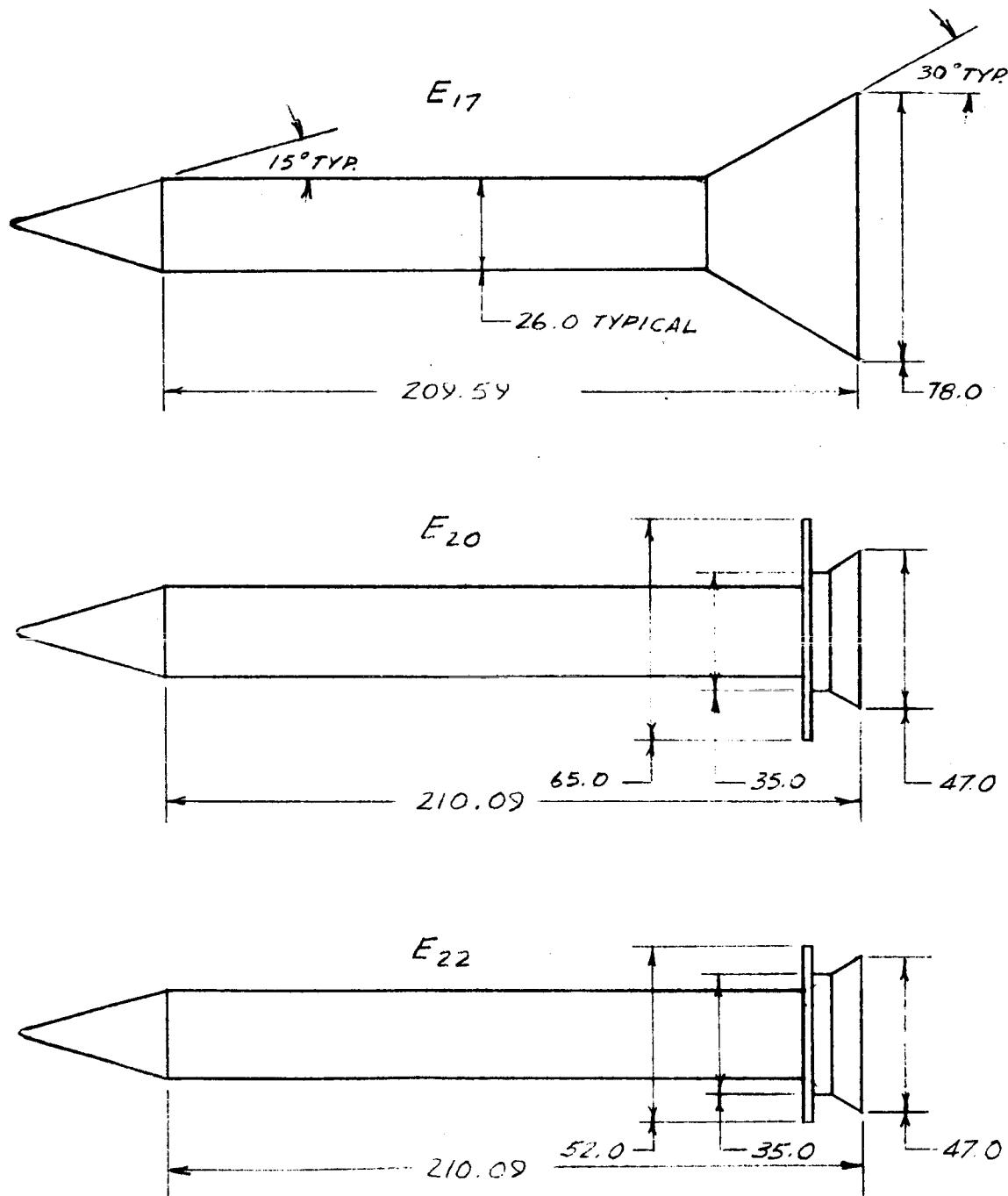
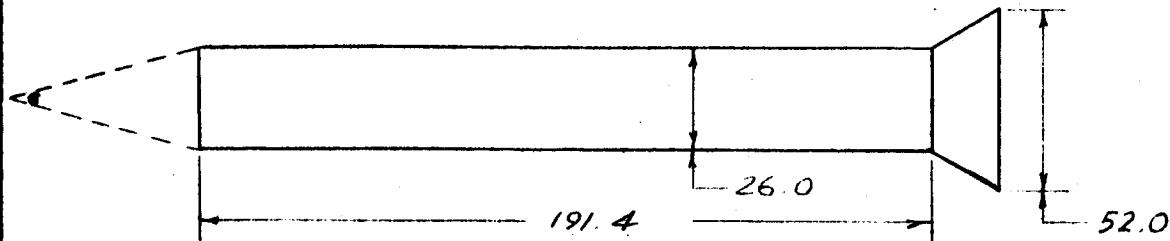
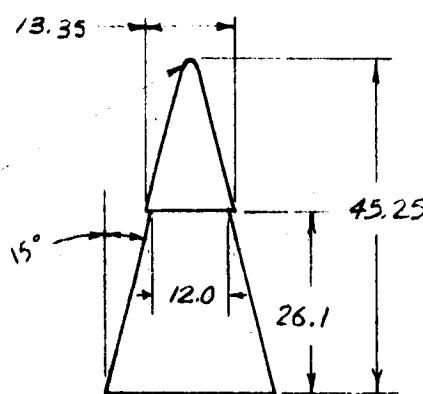
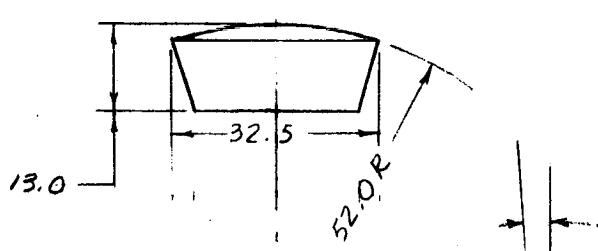
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FIGURE 2a. - LAUNCH ESCAPE SYSTEM, ESCAPE MOTORS (cont.)

~~CONFIDENTIAL~~BASIC BODY FOR E<sub>18</sub>, E<sub>19</sub>, & E<sub>21</sub>

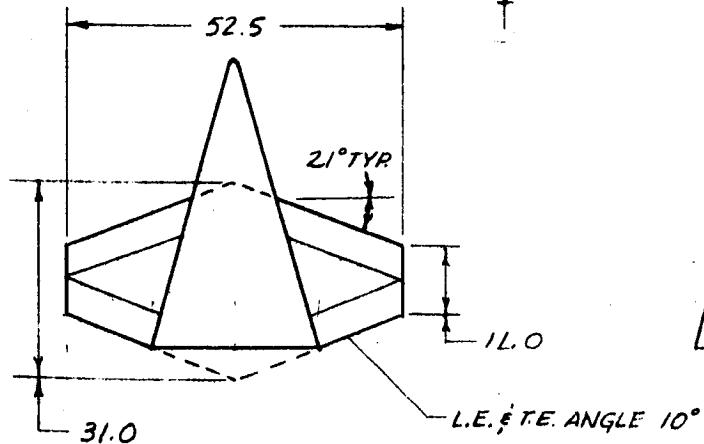
NOSE FOR:

E<sub>18</sub>E<sub>19</sub>

4° L.E. DOWN

E<sub>21</sub>

PLAN VIEW



SIDE VIEW

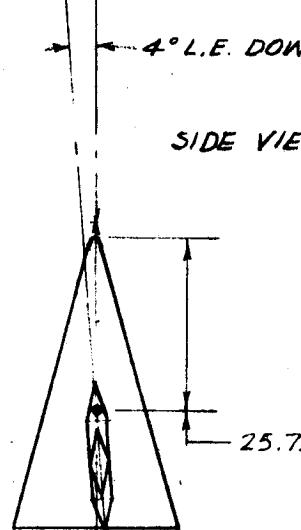


FIGURE 2 B. LAUNCH ESCAPE SYSTEM, ESCAPE MOTORS (cont.)

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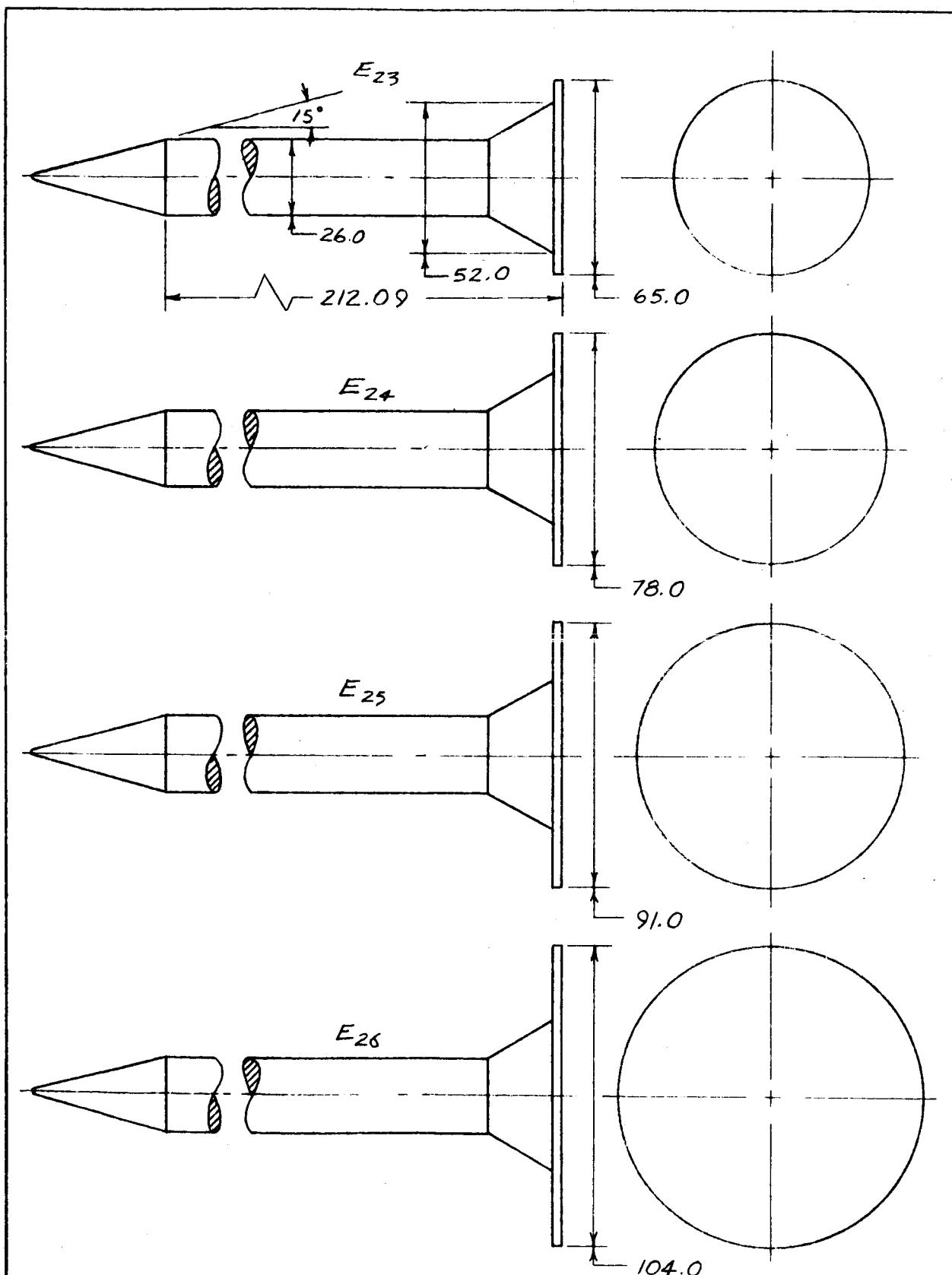
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FIGURE 2C - LAUNCH ESCAPE SYSTEM, ESCAPE MOTORS (cont.)

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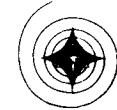
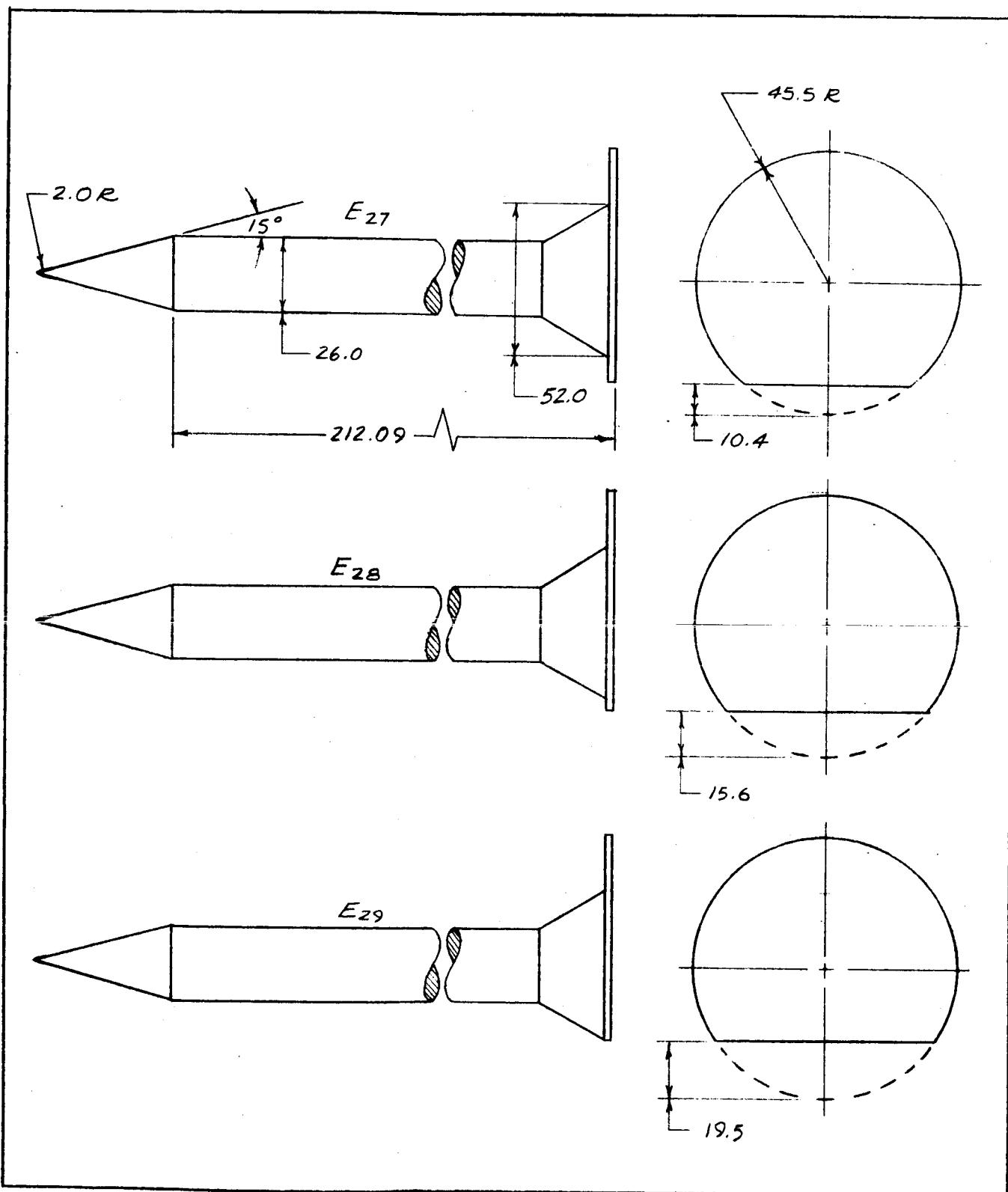
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FIGURE 2d LAUNCH ESCAPE SYSTEM, ESCAPE MOTORS (cont.)

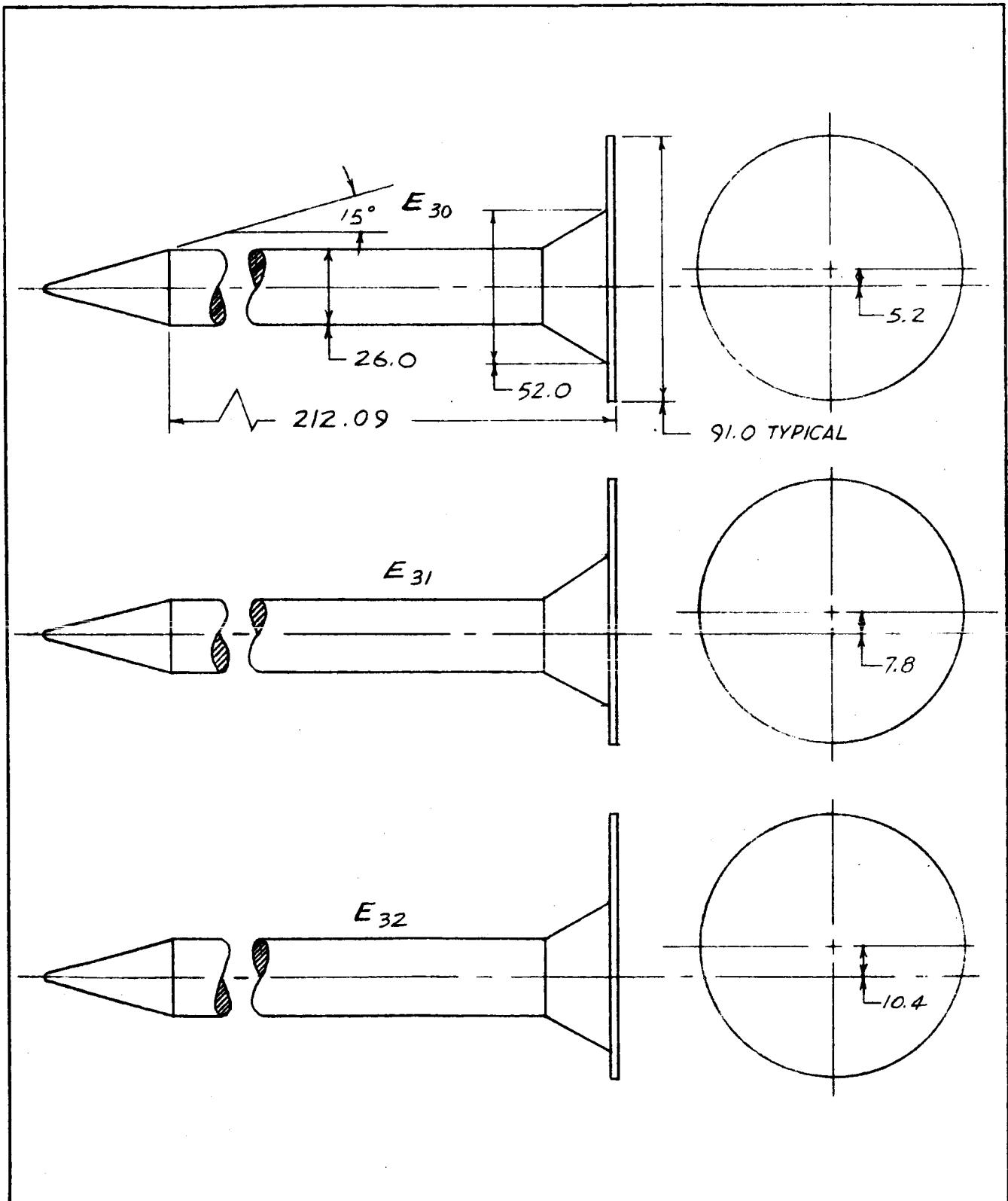
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FIGURE 2e - LAUNCH ESCAPE SYSTEM, ESCAPE MOTORS (cont.)

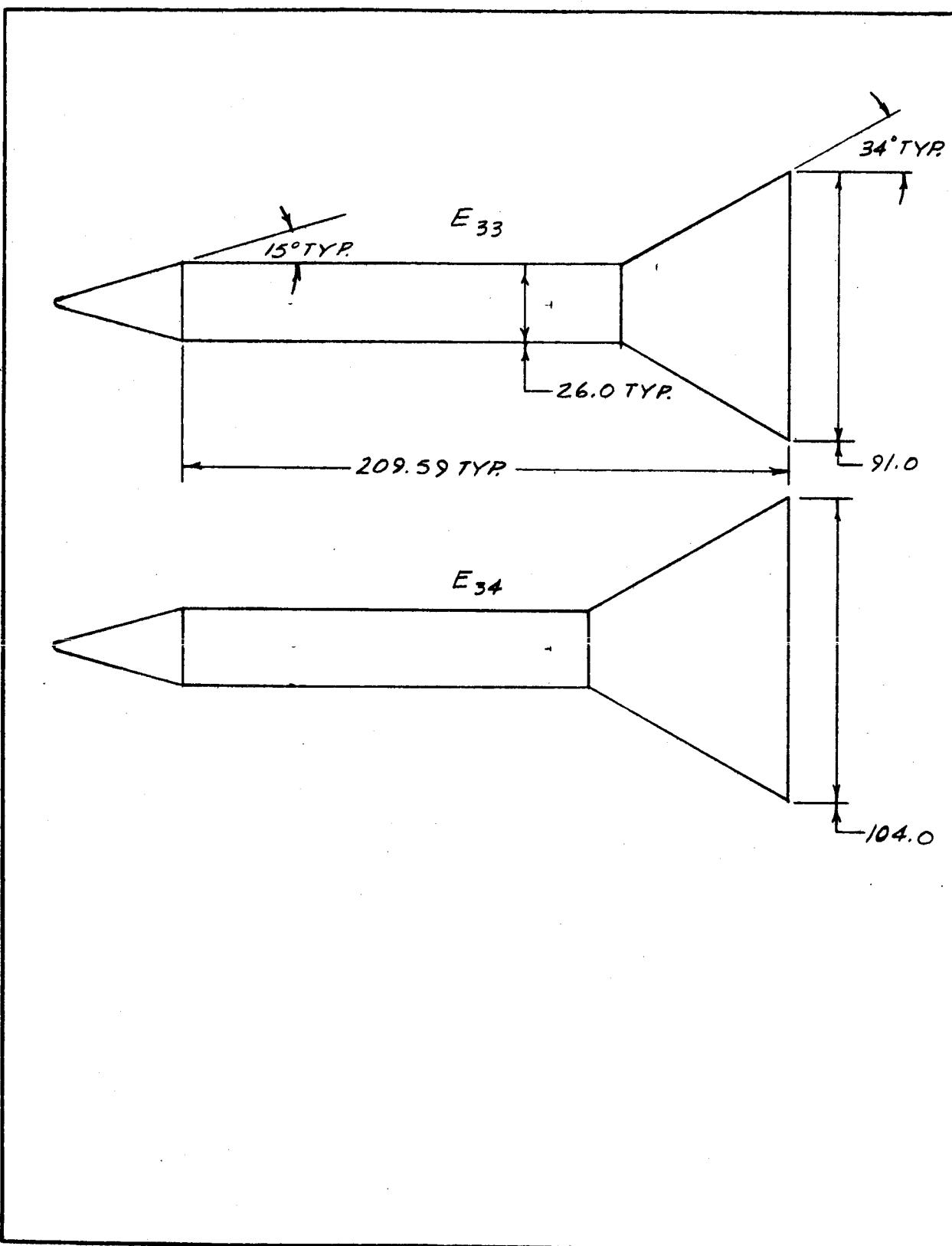
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FIGURE 2f - LAUNCH ESCAPE SYSTEM, ESCAPE MOTORS (cont.)

~~CONFIDENTIAL~~T<sub>7</sub>T<sub>11</sub>

SAME AS T<sub>11</sub> MINUS  
STIFFNER PLATES

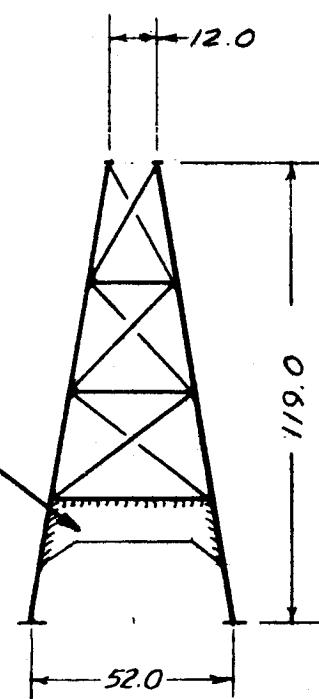


FIGURE 3. - LAUNCH ESCAPE SYSTEM, TOWER STRUCTURES

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### III. INSTRUMENTATION

#### Force Measurement

Six-component force and moment data were measured with the SAL H-675 balance, Ref. 2. The H-675 consists of a H-700B balance which measured pitching, yawing, and rolling moment, and a 3155 balance which measured chord force, pitching and yawing moment. The H-700B was located partially within the model and was shielded with a 7121-01051-24 sting shield. The 3155 was located in the sector assembly approximately 25 inches aft of the H-700B. A straight sting was used to support the model. A sketch of the model installation is shown in Fig. 4.

#### Pressure Measurement

Pressures were measured at the end of the windshield closest to the model and within the balance chamber. No corrections to force and moment data were made for these pressures at the time of this report.

#### Flow Visualization

Schlieren photographs were taken at approximately 10 degree intervals for each configuration and Mach number.

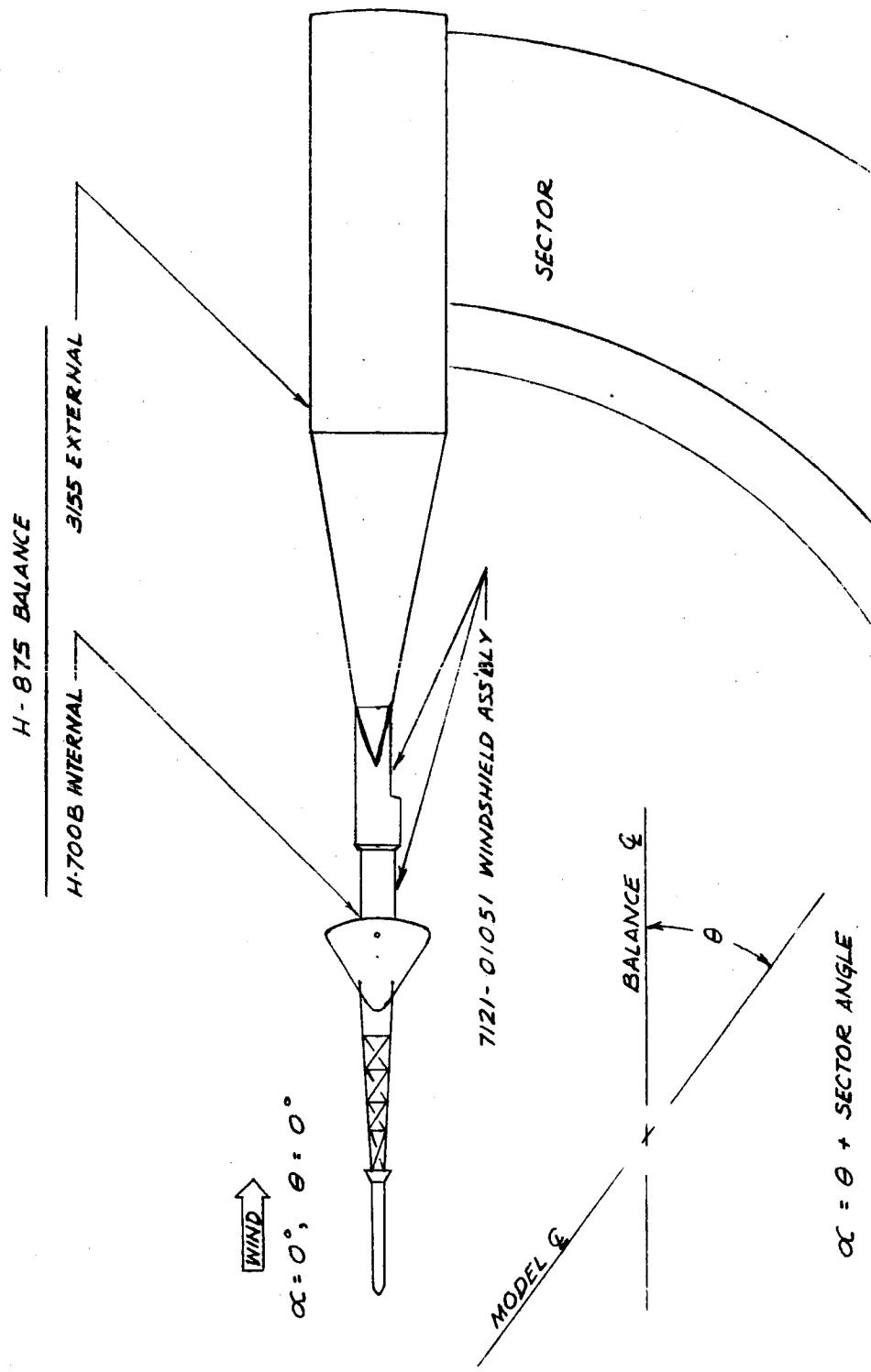


FIGURE 4 - MODEL INSTALLATION.



## IV. OPERATING CONDITIONS

Model Attitudes

The angle of attack range for the launch escape system was from -10 to +30 degrees.

Flow Conditions

The flow conditions indicated are for tunnel clear operation.

Mach No.	Reynolds No. $\times 10^{-6}$ based on command module diameter	Dynamic Pressure lb/ft <sup>2</sup>
0.681	0.98	720
1.575	1.16	984
3.270	.54	270

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## V. TEST DATA

SUMMARY of COMPLETED RUNS				TEST NO. 1204					
LAUNCH ESCAPE SYSTEM									
CONFIGURATION	RUN NUMBER								
MACH NUMBER	0.681			1.575		3.270			
ANGLE of ATTACK	-10 to 10	10 to 30	-10 to 10	10 to 30	-10 to 10	10 to 30			
119" TOWER									
E	T <sub>7</sub>	C		1	3				
E <sub>BL</sub>	↓			7	.				
119" TOWER WITH STIFFNER PLATES									
E <sub>10</sub>	T <sub>11</sub>	C	6	5	28	4			
E <sub>12</sub>			23	15	9	14			
E <sub>14</sub>			22		10	13			
E <sub>15</sub>			16		11	12			
E <sub>16</sub>			17						
E <sub>17</sub>			18						
E <sub>18</sub>			19						
E <sub>19</sub>			20						
E <sub>20</sub>			21		30	27			
E <sub>21</sub>			24		25	26			
E <sub>22</sub>			31		29	28			
E <sub>23</sub>			36		40				
E <sub>24</sub>			37		42				
E <sub>25</sub>			38		43				
E <sub>26</sub>			39		44				
E <sub>27</sub>			45						
E <sub>28</sub>			46						
E <sub>29</sub>			47		41				
E <sub>30</sub>			48						
E <sub>31</sub>			49						
E <sub>32</sub>			50						
E <sub>33</sub>			51						
E <sub>34</sub>	↓	↓	52						



## VI. TABULAR DATA

Data Reduction Constants

Reference area = 7.4506 in<sup>2</sup>.

Reference length = 3.0800 in.

Reference center of gravity location:

Launch Escape System for Runs 1-35 of Test No. 1204

2.1560 inches from the center of the heat shield, measured along the axis of symmetry

Located on the axis of symmetry

Launch escape system for runs 36-52 of Test No. 1204

1.8788 inches from the center of the heat shield measured along the axis of symmetry

0.13552 inches below the axis of symmetry

Index to Tabulated Data

A key to the tabulated data is shown in Fig. 5. The following nomenclature was used.

Symbol

$C_L$	Lift coefficient	= $L/qS$
$C_N$	Normal force coefficient	= $N/qS$
$C_X$	Axial force coefficient, stability axes	= $C_D$ , when $\neq 0$
$C_A$	Axial force coefficient, body axes	= $A/qS$
$C_D$	Drag coefficient	= $D/qS$
$C_m$	Pitching moment coefficient	= $m/qSd$
$C_n$	Yawing moment coefficient	= $n/qSd$
$C_l$	Rolling moment coefficient	= $l/qSd$
$L/D$	Lift drag ratio	= $C_L/C_D$

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- $X_{cp}/d$  Center of pressure, measured from the center of the heat shield along the axis of symmetry  
 $= (\bar{x}/d) + (C_{m,c.g.}/C_N) - (C_A/C_N) (\bar{z}/d)$
- $q$  Dynamic pressure, psi.
- $S$  Reference area, in<sup>2</sup>.
- $d$  Reference length, in.
- $\bar{x}$  Distance from the center of the heat shield to the reference center of gravity, measured along the axis of symmetry, in.
- $\bar{z}$  Distance from the axis of symmetry to the reference center of gravity in the x plane, in.
- $\alpha$  Angle of attack, deg.
- $\psi$  Angle of yaw, deg.
- $C_{pb}$  Pressure coefficient at the end of the windshield  
 $= (P_b - P_\infty / q)$

Subscripts

S Referenced to the stability axis system

B Referenced to the body axis system

Index to Tabulated Data

The test data is tabulated in Appendix A of this report.  
Figure 5 shows the location of the coefficients on the data sheets.



EACH POINT CONSISTS OF TWO LINES  
REFER TO SECTION 7 FOR RUN IDENTIFICATION

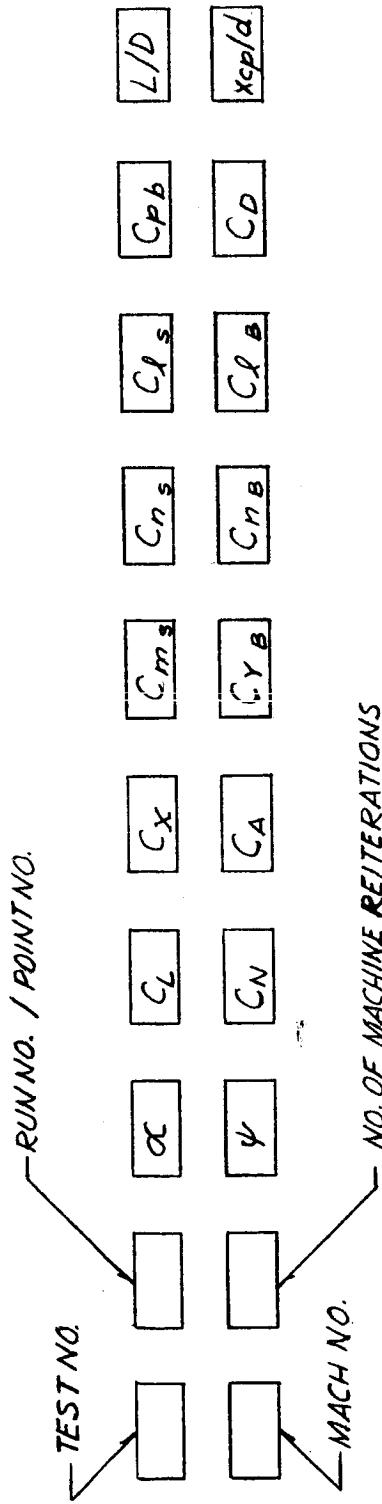


FIGURE 5: INDEX TO TABULATED DATA.



## VII. REFERENCES

1. Cohen, M. H., "Test and Model Information to Wind Tunnel Tests of an 0.02-Scale Force Model (FS-1) of the Apollo in the North American Aviation Supersonic Aerophysics Laboratory," North American Aviation Report NA-62-82, 25 January 1962.
2. Strain Gage Balance, NAA Drawing H-875, 31 January 1962.

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APPENDIX A

A-1

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NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 199 CONFIGURATION.. (12)=E T7 C

RUN NO. 1

TEST NO. RUN.LOG ALPHA C CL CX CPM CYM-STAB CRM-STAB (DP/Q)B (L/D)

MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM-BODY CRM-BODY CD (X CP/D)

1204 1.004 .015 .02445 .80264 -.01966 .003449 .00096 0 .03047

1575 2.000 -0 .02467 .80264 -.00328 .00449 .00096 .80264 -0

0 .005 .005 .01355 .80588 -.01411 .00243 .00087 0 .31682

0 2.000 .007 .01362 .80588 .00106 .00243 .00087 .80588 -0

0 .006 .003 .01188 .80683 -.01353 .00219 .00074 0 .01472

0 2.000 .007 .01191 .80683 .00110 .00219 .00074 .80683 -0

0 .007 .002 .01026 .80683 -.01210 .00224 .00082 0 .01272

0 2.000 .006 .01029 .80683 .00081 .00224 .00082 .80683 -0

0 .008 -5.206 -.11033 .888310 .07786 .00178 .00149 0 -.12493

0 2.000 .011 -.18999 .86945 .00299 .00164 .00164 .88310 -.23018

0 .012 .001 .00997 .82140 -.01258 .00193 .00132 0 .01213

0 2.000 .008 .00998 .82140 .00179 .00193 .00132 .82140 -0

0 .013 -5.205 -.10888 .89672 .07838 .00199 .00199 .00121 0 -.12141

3 2.000 .012 -.18976 .88315 .00318 .00187 .00139 .89672 -.28697

NAA SISD SUPersonic AERO LABORATORY TEST DATA PRINTOUT. • (USE EDPM PROGRAMS 2K178+624) JGB NO. (3509-31)

SAL NO. 199                  THETA=0<sub>1</sub>                  CONFIGURATION..(12)=E T7 C

RUN NO. 1

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM-STAB	CRM-STAB	(DP/Q)B	(L/D)	(X CP/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM-BODY	CRM-BODY	CD	IX CP/D)	
1204	1.014	-10.351	-12877	.95800	.09950	.00174	.00120	0	-13441	
1575	2.000	.010	-29877	.91928	.00289	.00149	.00150	.95800	-36698	
0	.015	5.203	12440	.90402	-10200	.00431	.00104	0	13761	
0	2.000	-.002	.20585	.88902	-.00231	.00438	.00064	.90402	-20448	
0	.016	5.204	12488	.90262	-10194	.00444	.00099	0	13835	
0	2.000	-.002	.20621	.88757	-00246	.00451	.00059	.90262	-20565	
0	.017	10.345	.13615	.97867	-.12080	.00475	.00189	0	13911	
0	2.000	-.0	.30964	.93832	-.00362	.00501	.00101	.97867	-30988	
3	.018	10.348	.13816	.98462	-.12203	.00476	.00179	0	14031	
0	2.000	-.0	.31275	.94380	-.00369	.00500	.00091	.98462	-30981	

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 199      THE TA=0,      :0NFIGURATI ON. (22)=E10 T11 C      RUN NO. 2

TEST NO. RUN LOG    ALPHA C    CL    CX    CPM    CYM-STAB CRM-STAB (DP/Q1B (L/D))

MACH NO. REIT YAW C (CN) BODY (CA) BODY (CY) BODY CRM.BODY CRM.BODY CD (X CP/D)

1204	2.019	.01497	.01497	.01349	-.00313	.00096	0	.01889
1575	2.000	.014	.01507	.01507	.00769	-.00313	.00096	.79263 -3
0	.020	-1.035	-.00937	.79657	.00167	-.00346	.00113	0 -.01176
0	2.000	.017	-.02376	.017	.00904	-.00348	.00107	.79657 -.62987
0	.021	-2.079	-.03317	.02003	.01704	-.00301	.00115	0 -.04045
A-4	3.000	.018	-.06288	.31829	.00914	-.00305	.00104	.82003 -.42895
0	.022	-3.121	-.05738	.03937	.03445	-.00246	.00127	0 -.06836
2	2.000	.018	-.10298	.83500	.00868	-.00252	.00114	.83937 -.36551
0	.023	-5.200	-.09902	.88541	.06817	-.00089	.00140	0 -.11184
0	2.000	.017	-.17884	.87280	.00732	-.00101	.00132	.88541 -.31884
0	.024	-10.349	-.12185	.95309	.09098	.00026	.00151	0 -.12785
0	2.000	.016	-.29106	.91570	.00629	-.00001	.00153	.95309 -.38742
3	.026	1.047	.03596	.79225	-.02699	.00029	.00032	0 .04540
0	2.000	.004	.05044	.79146	.03127	.00030	.00031	.79225 -.15493

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624). JOB NO.(3509-31)

SAL NO. 199 THE TA=0, CONFIGURATION..(22)=E10 T11 C

RUN NO. 2

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYN-STAB	CRM-STAB (DP/Q)B (L/D)	CD	(X CP/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYN.BODY	CRM.BODY	CD	(X CP/D)

1204	2.027	2.089	.05975	.81409	-.04312	-.00188	.00032	0	.07340
1575	2.000	.009	.08939	.81138	.00493	-.00186	.00038	.81409	-.21755
0	.028	3.126	.07788	.83931	-.05741	.00082	.00030	0	.09279
0	2.000	.005	.12352	.83381	.00125	.00083	.00026	.83931	-.23523
0	.029	5.198	.11221	.88428	-.08783	.00529	.00077	0	.12689
0	2.000	-.004	.19184	.87048	-.00549	.00533	.00029	.88428	-.24217
0	.030	7.259	.12816	.91690	-.10419	-.00466	.00100	0	.13978
0	2.000	-.002	.24297	.89337	-.00253	.00475	.00040	.91690	-.27120
0	.032	10.343	.13052	.94697	-.10763	.00457	.00066	0	.13783
0	3.000	-.003	.29838	.90816	-.00428	.00461	-.00017	.94697	-.33929

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JGB NO. (3509-31)

SAL NO. 199            THETA=20,            CONFIGURATION..(12)=E T7 C

RUN NO. 3

TEST NO. RUN.L06    ALPHA C    CL    CX    CPM    CYM.STAB (DP/Q)B (L/D)

MACH NO. REIT    YAW C (CN)BODY (CA)BODY (CY)BODY CYM.BODY CRM.BODY CD IX CP/D)

1204	3.033	20.330	.18401	.86807	-.09263	.00735	-.00092	0	.21198
1575	2.000	-.006	.47409	.75010	-.00287	.00657	-.00341	.86807	-.50461
0	.034	15.191	.18195	.81455	-.10443	.00714	.00038	0	.22337
0	2.000	.014	.38900	.73843	.00048	.00699	-.00151	.81455	-.43155
0	.035	10.053	.18103	.82554	-.12282	.00583	-.00024	0	.21929
0	2.000	.012	.32233	.78127	.00054	.00570	-.00125	.82554	-.31896
0	.036	25.457	.16332	1.00828	-.09412	.00960	.00160	0	.16198
0	2.000	-.014	.58079	.84023	-.00174	.00936	-.00268	1.00828	-.53794
0	.037	30.642	.16876	1.08404	-.08549	.01063	.00172	0	.15567
0	3.000	-.006	.69761	.84673	-.37531	.01002	-.00393	1.08404	-.57746

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 199      THE TA=20,      CONFIGURATION..(22) =E10 T11 C      RUN NO. 4

TEST NO.      RUN. LOG      ALPHA C      CL      CX      CPN      CRM-STAB CRM-STAB (DP/Q1B (L/D))

MACH NO.      REIT      YAW C (CNA) BODY (CA) BODY (CY) BODY CRM.BODY CRM.BODY CD (X CP/D)

1204	4.039	20.380	.19192	.87518	-.06017	.00939	-.00093	0	.21930
1575	3.000	-.019	.48464	.75359	-.01457	.00848	-.00414	.87518	-.57585
3	.040	15.210	.17598	.81843	-.08049	.00516	.00105	0	.21503
0	2.000	.009	.38450	.74361	.00017	.00526	-.00034	.81843	-.49066
0	.041	10.048	.117050	.84615	-.11105	.00335	.00126	0	.20151
3	2.000	.015	.31550	.80344	.00365	.00352	.00066	.84615	-.34803
0	.042	25.531	.16692	1.03461	-.04217	.00886	.00053	0	.16134
0	4.000	-.002	.59647	.86169	-.00735	.00823	-.00334	1.03461	-.62930
0	.044	30.757	.19053	1.10491	-.02214	.00827	.00109	0	.17244
0	2.000	-.001	.72869	.85213	-.00642	.00852	-.00380	1.10491	-.66961
0	.045	20.379	.19052	.87487	-.05949	.00977	-.00219	0	.21777
0	3.000	-.022	.48320	.75380	-.01585	.00840	-.00545	.87487	-.57688

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT - (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SIMULATION NO. (22) RUN NO. 5  
THE TA=20.0

TEST NO. RUN # 006 ALPHA E C1 CX CPM CYM. STAB (DP / 3) B (L/D)

MACH NO.	REIT	YAW C	(CNI) BODY	(CA) BODY	(CY) BODY	CYM. BODY	CRM. BODY	CD	(X CP/D)
----------	------	-------	------------	-----------	-----------	-----------	-----------	----	----------

1204 5.046 20.189 .19717 .78120 -.08498 .00765 -.00128 0 .25240  
681 2.000 -.002 .45462 .66519 -.00693 .00674 -.00384 .078120 -.51308

0	0	2,000	-0003	•36157	.74643	-00627	.00533	-00342	.81484	-47409
0	0	•047	15.097	•15473	•81484	-08163	•00604	-00192	0	•18989

• 27017	• 007	2,000
0	0	0
• 048	10.017	• 12673
0	0	• 83592
• 00023	• 00276	- .06998
0	0	• 00298
• 00025	• 00276	- .83592
0	0	• 15161
• 00025	• 00276	- .44999

0	• 043	25.279	.24071	.75446	- .08214	- .00190	- .00795	0	• 31905
3	• 2000	- .027	.53979	.57947	- .01711	- .00511	- .00637	.75446	- .54783
9	• 2000	- .027	.53979	.57947	- .01711	- .00511	- .00637	.75446	- .54783

SID 62-753

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## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 199      THETA=0,      CONFIGURATION..(122) =E10 T11 C      RUN NO. 6

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYN. STAB	CRM. STAB	(DP/Q)B (L/D)	
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYN.BODY	CRM.BODY	CD	(X CP/D)
1204	6.051	.003	.01203	.59118	-.01189	.00214	.00052	0	.01741
681	2.000	-0	.01206	.69118	-.00147	.00214	.00052	.69118	-0
0	.052	-1.025	-.01904	.69056	.00419	.00255	.00033	0	-.02757
0	2.000	-.001	-.03138	.69011	-.00233	.00254	.00038	.69056	-.56640
0	.053	-2.049	-.04365	.69540	.01655	.00273	.00014	0	-.06277
0	2.000	-0	-.06848	.69340	-.00221	.00272	.00023	.69540	-.45835
0	.054	-3.072	-.06522	.70119	.02687	.00217	.00022	0	-.09301
0	2.000	-0	-.10269	.69669	-.00152	.00215	.00034	.70119	-.43838
0	.055	-5.110	-.09075	.72215	.03701	.00275	.00011	0	-.12566
0	2.000	-.001	-.15470	.71120	-.00241	.00273	.00036	.72215	-.46076
0	.056	-10.175	-.09956	.76646	.04356	.00353	.00081	0	-.12990
0	3.000	-.003	-.23336	.73683	-.00048	.00333	.00142	.76646	-.51334
0	.057	1.026	.03672	.69391	-.02507	.00319	.00063	0	.05292
	2.000	-.002	.04914	.69314	-.00334	.00320	.00058	.69391	-.18995

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO.	199	TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CRM-STAB	CRM-Q/B	(L/D)	THETA=0,	CONFIGURATION..(22)	E10 T11 C	RUN NO.	6
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY										
1204	6.058	2.050	.06108	.70031	-.03719	.00327	.00080	0	0	.08722					
681	3.000	-.002	.08610	.69767	-.00381	.00329	.00068	.70031	-.26799						
0	.059	3.073	.08030	.71269	-.04612	.00293	.00080	0	0	.11267					
0	2.000	-.001	.11838	.70737	-.00289	.00296	.00064	.71269	-.31044						
0	.060	5.111	.10474	.73901	-.05596	.00323	.00082	0	0	.14173					
0	3.000	-.002	.17015	.72674	-.00368	.00329	.00053	.73901	-.37112						
0	.061	7.133	.10091	.76446	-.05555	.00443	.00126	0	0	.13201					
A-10	0	3.000	-.003	.19504	.74601	-.00558	.00455	.00070	.76446	-.41522					
	0	.062	10.171	.10620	.78781	-.06325	.00389	.00129	0	0	.13480				
	0	3.000	-.005	.24362	.75669	-.00617	.00406	.00058	.78781	-.44037					



## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JGB NO.(3509-31)

SAL NO. 199            THETA=0,            CONFIGURATION..(12)=E T7 C            +BL(GRIT)            RUN NO. 7

TEST NO.	RUN LOG	ALPHA C	CL	CX	CP4	CYM-STAB	CRM-STAB (DP/Q)B	(L/D)	
MACH NO.	RELT	YAW C	(CN)BODY	(CA) BODY	(CY) BODY	CYM.BODY	CRM.BODY	CD	(X CP/D)
1204	7.070	2.102	.07955	.82866	-.05865	.00347	.00046	0	.09599
1575	2.000	-.004	.10988	.82519	-.00106	.00349	.00033	.82866	-.16624
0	.071	3.142	.10173	.85515	-.07625	.00353	.00059	0	.11896
3	2.000	-.003	.14843	.84829	-.00151	.00356	.00039	.85515	-.18629
0	.072	5.207	.12646	.90230	-.09918	.00362	.00111	0	.14015
0	2.000	-.002	.20782	.88710	-.00188	.00370	.00077	.90230	-.22276
0	.073	7.266	.13648	.95224	-.11327	.00445	.00172	0	.14333
0	2.000	-.001	.25580	.92733	-.00281	.00463	.00115	.95224	-.25721
0	.074	10.348	.13997	.98344	-.12148	.00535	.00267	0	.14233
0	2.000	-.004	.31432	.94232	-.00552	.00574	.00167	.98344	-.31351

NAA S1SD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201            THETA=0,            RUN NO. 8

CONFIGURATION..(22)= E10 T11 C

TEST NO.	RUN. LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	DP/Q1B (L/D)	CD	(X CP/D)
1204	8.075	.007	.01572	.78541	-.01515	.00206	-.00011	0	.02001	
1575	3.000	.005	.01581	.78541	.000206	-.00011	.78541	-0		
0	.077	-5.194	-.09293	.87950	.06376	.00008	.00120	0	-.10566	
0	2.000	.016	-.17216	.86748	.00629	-.00003	.00120	.87950	-.32964	
0	.078	-10.348	-.11821	.96175	.08939	.00135	.00111	0	-.12291	
0	2.000	.014	-.28900	.92489	.00474	-.00113	.00133	.96175	-.39070	
0	.079	5.203	.11901	.88389	-.09218	.00448	.00026	0	.13465	
3	3.000	-.002	.19867	.86946	-.00398	.00449	-.00015	.88389	-.23601	
0	.080	10.354	.13158	.98752	-.10970	.00347	.00244	0	.13324	
0	2.000	-.002	.30689	.94780	-.00340	.00385	.00178	.98752	-.34253	

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. USE EDPM PROGRAMS 2K178+624 JOB NO. (3509-31)

SAI. N3. 201 T<sub>4</sub>E<sub>TA</sub>=0, CONFIGURATION.. (23)= E12 T11 C RUN NO. 9

TEST N3.	RUN,LGG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB (DP/Q)B (L/D)	CRM. BODY	CRM. BODY	CD	(X CP/D)
MACH NO.	RELT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY						
1204	9.081	.000	.012	.01255	.76154	.00444	.00050	.00059	.00059	.0	.31636
1575	2.000	.000	.012	.01255	.76154	.00444	.00050	.00059	.00059	.0	-0
0	.082	-1.037	-0.01255	.76308	.00349	-0.00203	.00078				-.01645
0	2.000	.017	-0.02636	.76273	.00827	-0.00204	.00075	.00075	.00075	.0	-.56762
0	.083	-2.0083	-0.04059	.77803	.02080	-0.00189	.00093				-.05216
0	2.000	.019	-0.06884	.77604	.00865	-0.00192	.00087	.00087	.00087	.0	-.39779
0	.084	-3.0126	-0.06546	.79751	.03743	-0.00142	.00123				-.08209
0	2.000	.019	-1.0885	.79275	.00849	-0.00149	.00115	.00115	.00115	.0	-.35610
0	.085	-5.0205	-1.0560	.84609	.06758	.00029	.00157				-.12481
0	2.000	.014	-1.18191	.83303	.00544	.00015	.00159	.00159	.00159	.0	-.32847
0	.087	-13.360	-1.12817	.94967	.08935	.00108	.00140				-.13497
0	2.000	.016	-2.29684	.91115	.00587	.00081	.00157	.00157	.00157	.0	-.39899
0	.088	1.047	.03236	.77408	-0.02170	.00281	.00050				.04181
0	2.000	.007	.04650	.77336	.00073	.00282	.00045	.00045	.00045	.0	-.23336

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 THE TA=0, CONFIGURATION..(23)= E12 T11 C RUN NO. 9

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYN. STAB	CRM. STAB (DP/Q)B	(L/D)
MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYN. BODY	CRM. BODY	CD (X CP/D)
1204	9.089	2.090	.05815	.79600	-.33954	.00192	.00055	0 .07306
1575	2.000	.007	.08714	.79335	.00126	.00194	.00048	.79600 -.24627
0	.091	3.133	.08448	.81486	-.05903	.00275	.00028	0 .10368
0	3.000	.005	.12888	.80903	-.00017	.00276	.00013	.81486 -.24193
0	.092	5.208	.12255	.86905	-.09129	.00327	.00184	0 .14102
0	2.000	-.002	.20091	.85434	-.00163	.00342	.00154	.86905 -.24562
0	.093	7.272	.13937	.90906	-.10723	.00409	.00223	0 .15331
0	2.000	-.002	.25329	.88411	-.00397	.00434	.00169	.90906 -.27665
0	.094	10.365	.14491	.96389	-.11201	.00361	.00179	0 .15033
0	3.000	-.004	.31593	.92210	-.00437	.00387	.00111	.96389 -.34546

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPH PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201      THETA=0, CONFIGURATION.. (24)= E14 T11 C      RUN NO. 10

TEST NO.	RUN.1GG	ALPHA C	CL	CX	CPM	CYM-STAB	CRM-STAB (DP/QB (L/D))
MACH NO.	REIT	YAH C	(CN)BODY	(CY)BODY	CYM.BODY	CRM.BODY	CD (X CP/D)

1204	10.095	.0005	.01407	.81109	-.01404	.0046	.00210	0	.01735
1575	2.000	-.006	.01415	.81109	-.00112	.0046	.00210	.81109	0
0	.035	-1.034	-.00628	.81500	-.00079	.00473	.00137	0	-.33770
0	2.000	.008	-.02098	.81475	-.00032	.00471	.00146	.81500	-.73763
0	.097	-2.076	-.02945	.82473	.01437	.00084	.00057	0	-.03571
0	2.000	.017	-.05930	.82312	.00613	.00082	.00060	.82473	-.45767
0	.098	-3.121	-.05801	.83886	.03475	-.00039	.00090	0	-.06915
0	2.000	.021	-10359	.83445	.00847	-.00047	.00087	.83886	-.36458
0	.099	-5.0194	-.09095	.88122	.06162	-.00097	.00113	0	-.10321
0	2.000	.020	-.17034	.86937	.00845	-.00106	.00103	.88122	-.33825
0	100	-.100	-10.352	.96087	.08300	.00169	.00146	0	-.12099
0	2.000	.019	-.28700	.92434	.00650	.00140	.00174	.96087	-.41082
0	101	1.045	.03409	-.82117	-.02689	.00410	.00171	0	-.04151
0	4.000	.007	.04906	.82041	-.00037	.00413	.00163	.82117	-.15193

## NAA SISO SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201                  THETA=0,                  CONFIGURATION..(24)= E14 T11 C                  RUN NO. 10

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM-STAB	CRM-STAB (DP/Q1B (L/D))	CRM-BODY	CRM-BODY	CD	(X CP/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY						
1204	10.102	2.091	.06173	.83019	-.04558	.00344	.00236	0	0	.07436	
1575	2.000	.006	.09197	.82739	-.00010	.00353	.00224	.83019	-.20440		
0	.103	3.131	.08517	.84841	-.06388	.00295	.00028	0	.00039		
0	3.000	.006	.13137	.84250	.00029	.00296	.00012	.84841	-.21375		
0	.104	5.203	.11534	.89467	-.08921	.00252	.00304	0	.12892		
0	2.000	.005	.19598	.88053	-.00012	.00279	.00280	.89467	-.24478		
0	.105	7.265	.12969	.92440	-.10285	.00373	.00193	0	.14029		
0	2.000	-0	.24552	.90059	-.30277	.00394	.00144	.92440	-.28110		
0	.106	10.359	.13157	.97274	-.10181	.00471	.00187	0	.13526		
0	2.000	-.002	.30431	.93324	-.00299	.00497	.00099	.97274	-.36543		

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT • USE EDPN PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201            THETA=0,            CONFIGURATION (25)= E15 T11 C            RUN NO. 11

TEST NO. RUN LOG ALPHA C            CL            CX            CPM            CRM-STAB (DP/Q18 (L/D)

MACH NO. REIT YAW C (CN) BODY (CY) BODY CRM BODY CD (X CP/D)

1204	11.107	.005	.01113	.78627	-.01043	.00228	.00003	0	.01416
1575	3.000	.009	.01120	.78627	.00200	.00228	.00003	.78627	-0
0	.108	-1.041	-.02041	.77295	.01113	-.00124	.00036	0	-.02640
0	2.000	.015	-.03444	.77245	.00671	-.00125	.00033	.77295	-.37693
0	109	-2.084	-.04393	.77821	.02436	-.00225	.00047	0	-.05644
0	2.000	.017	-.07220	.77610	.00842	-.00226	.00039	.77821	-.36265
0	.110	-3.126	-.06586	.79521	.03805	-.00082	.00077	0	-.08281
0	2.000	.016	-.10911	.79044	.00681	-.00086	.00073	.79521	-.35124
0	111	-5.201	-.10068	.83603	.06298	-.00024	.00107	0	-.12042
0	2.000	.015	-.17604	.82346	.00574	.00015	.00109	.83603	-.34227
0	112	-10.365	-.12754	.94563	.08368	.00117	.00111	0	-.13488
0	2.000	.016	-.29556	.90726	.00558	.00095	.00130	.94563	-.41687

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0	113	1.048	.03531	.79823	-.02558	.00261	.00016	0	.04424
0	3.000	.005	.04991	.79745	-.00005	.00261	.00012	.79823	-.18742

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201      THE TA=0,      CONFIGURATION..(25)= E15 T11 C      RUN NO. 11

TEST NO.	RUN. LOG	ALPHA C	CL	CX	CPM	CYM-STAB	CRM-STAB (DP/Q/B (L/D))	CY	CRM-BODY	CRM-BODY	CD	(X CP/D)
1204	11.114	2.092	.06205	.80678	-.04337	.00412	.00039	0	.07691			
1575	2.000	-.002	.09146	.80397	-.00227	.00414	.00024	.80678	-.22583			
0	.115	3.135	.08974	.82873	-.06492	.00545	.00046	0	.10828			
0	3.000	-.001	.13492	.82258	-.00449	.00546	.00016	.82873	-.21883			
0	.116	5.199	.11297	.86709	-.08591	.00365	.00129	0	.13029			
0	2.000	-.001	.19106	.85329	-.00295	.00375	.00095	.86709	-.25033			
0	.117	7.274	.14005	.90717	-.10558	.00454	.00121	0	.15438			
0	3.000	-.004	.25376	.88214	-.00504	.00466	.00063	.90717	-.28396			
0	.118	10.374	.14444	.96633	-.10433	.00408	.00151	0	.16947			
0	3.000	-.008	.31606	.92453	-.00639	.00428	.00075	.96633	-.36990			

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT.. I USE EDPM PROGRAMS 2K178+6241 JOB NO. (3509-31)

SAL NO. 201 THE TA=20, RUN NO. 12

TEST NO. RUN LOG ALPHA C CL CX CPM CRM STAB (DP /2) 18 (L/D)

MACH NO. REIT YAW C (CN) BODY (CA) BODY (CY) BODY CRM BODY CD (X CP/D)

1204 12.120 20.409 .19221 .88289 -.04169 .01222 -.00012 0 .21770

1575 3.000 -.302 .48797 .76048 -.00975 .01142 -.00437 .88289 -.61457

0 .121 15.231 .17835 .82593 -.06824 .01094 -.00047 0 .21593

0 2.000 -.012 .38902 .75008 -.03334 .01044 -.00332 .82593 -.52459

0 .122 10.050 .16975 .86986 -.10692 .00527 -.00087 0 .19514

0 3.000 .011 .31891 .82690 .00044 .00504 -.00178 .86986 -.36472

0 .123 25.580 .17710 1.03852 -.02053 .01221 -.00146 0 .17053

3 3.000 -.027 .60807 .86032 -.01947 .01039 -.00659 1.03852 -.66624

0 .124 30.823 .20221 1.11337 .00761 .01226 -.00089 0 .18162

0 2.000 -.011 .74403 .85258 -.01299 .01007 -.00705 1.11337 -.71023

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 RUN NO. 13  
THETA=20, CONFIGURATION..(24)= E14 T11 C

TEST NO. RUN.LOG ALPHA C CL CX CPM CRM-STAB (DP/Q)B (L/D)  
MACH NO. REIT YAW C (CN) BODY (CA) BODY (CY) BODY CRM.BODY CRM.STAB (DP/Q)B (L/D)

1204	13.125	20.390	.18622	.88192	-.04861	.01306	.00087	0	.21115
1575	2.000	-.014	.48177	.76181	-.00394	.01254	-.00374	.088192	-.59909
0	.126	15.214	.16898	.83510	-.07015	.01248	-.00041	0	.20234
0	2.000	-.013	.38217	.76151	-.00390	.01194	-.00367	.083510	-.51644
0	.127	10.038	.15929	.86990	-.10335	.00662	-.00042	0	.18311
0	2.000	-.017	.30844	.82884	.00199	.00644	-.00157	.086990	-.36494
0	.129	25.554	.16686	1.03251	-.02670	.01080	.00088	0	.16160
0	3.000	-.009	.59585	.85958	-.00453	.01013	-.00386	1.03251	-.65519
3	.130	30.793	.19281	1.10762	-.00236	.01298	-.00024	0	.17407
0	2.000	-.005	.73257	.85284	-.01134	.01103	-.00684	1.10762	-.69578

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)  
SAL NO. 201 : CONFIGURATION. (23) = E12 T11 C RUN NO. 14

TEST NO. RUN LOG ALPHA C CL CX CPY CRM-STAB (DP/QI B (L/D)  
MACH NO. REIT YAW C (CN) BODY (CY) BODY CRM-BODY CD (X CP/D)

1204	14.131	20.392	.18955	.88573	-.05182	.01230	-.00126	0	.21400	
1575	2.000	-.004	.48625	.76420	-.01038	.01109	-.00547	.88573	-.59343	
0	.132	15.224	.18153	.83349	-.07817	.01116	-.00134	0	.21780	
0	3.000	-.004	.39399	.75659	-.00671	.01042	-.00423	.83349	-.50158	
A-22	0	.133	10.041	.16900	.87102	-.11318	.00576	-.00097	0	.19402
-	0	3.000	.011	.31825	.82822	.00026	.00551	-.00196	.87102	-.34437
-	0	.134	25.554	.17201	1.03832	-.03439	.01362	-.00096	0	.16567
-	0	2.000	-.003	.60301	.86259	-.01103	.01188	-.00675	1.03832	-.64297
0	0	.135	30.788	.19728	1.11374	-.01392	.01396	.00022	0	.17714
0	0	2.000	-.004	.73948	.85587	-.01136	.01210	-.00696	1.11374	-.66116

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201                    THETA=20,                    CONFIGURATION.. (23)= E12 T11 C                    RUN NO. 15

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q)B	(L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM.BODY	CRM.BODY	CD	(X CP/D)
1204	15.136	20.195	.19886	.79236	-.08213	.00472	-.00092	0	.25097
681	2.000	-0	.46012	.67503	-.00357	.00411	-.00249	.79236	-.52151
0	.137	15.103	.15967	.82518	-.08036	.00415	.00050	0	.19350
0	2.000	.008	.36912	.75510	.00233	.00414	-.00060	.82518	-.48229
0	.138	10.024	.13562	.84342	-.07103	.00291	.00081	0	.16080
0	2.000	.012	.28032	.80695	.00620	.00300	.00029	.84342	-.44662
0	.139	25.288	.24047	.76930	-.07675	.01844	.00740	0	.31258
0	2.000	.034	.54599	.59290	.01002	.01984	-.00119	.76930	-.55943
0	.140	30.437	.30167	.79139	-.01738	-.01083	-.02123	0	.38119
0	1.000	-.077	.66095	.52957	-.04395	-.02009	-.01282	.79139	-.67371

## NAASISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JGB NO.(3509-31)

SAL NO. 201 THETA=0, CONFIGURATION..(25)= E15 T11 C

RUN NO. 16

TEST NO.	RUN.LUG	ALPHA C	CL	CX	CPH	CYH.	CRM-STAB	CRM-STAB (DP/Q)B	IL/DI
MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYH.BODY	CRM.BODY	CD	(X CP/D)

1204	16.141	-0.001	.00542	.66736	-0.00880	.00453	.00060	0	.00812
681	2.000	-0.003	.00541	.66736	-0.00544	.00453	.00063	.66736	-0
0	.142	-1.029	-0.02689	.67198	.00717	.00392	-.00005	0	-.04001
0	3.000	-0.001	-0.03895	.67139	-.00359	.00392	.00002	.67198	-.51606
0	.143	-2.056	-0.05477	.67956	.02063	.00278	.00010	0	-.08060
0	2.000	-0.002	-0.07911	.67716	-.00049	.00278	.00020	.67956	-.43919
0	.144	-3.079	-0.07562	.69066	.03023	.00320	.00052	0	-.10949
0	2.000	-0.002	-0.11260	.68561	-.00099	.00317	.00069	.69066	-.43149
0	.145	-5.116	-0.10079	.70916	.04170	.00159	.00104	0	-.14213
0	2.000	.004	-0.16362	.69735	.00184	.00149	.00118	.70916	-.44515
0	2.000	.006	-.24135	.72961	.00246	.00209	.00133	.76078	-.51127
0	.147	1.029	.04215	.67279	-.02769	.00542	.00023	0	.06266
0	3.000	-.005	.05423	.67193	-.00744	.00542	.00013	.67279	-.18937

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201            THETA=0,            CONFIGURATION..(25)= E15 T11 C            RUN NO. 16

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPH	CYM-STAB	CRM-STAB (DP/Q)B	(L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CRM.BODY	CD	(X CP/D)
1204	16.148	2.055	.06840	.68359	-.04039	.00485	.00032	0      .10006
681	3.000	-.004	.09286	.68070	-.00657	.00486	.00014	.68359      -.26504
0	0.149	3.078	.09036	.69703	-.05104	.00454	.00049	0      .12964
3	3.000	-.004	.12766	.69118	-.00571	.00456	.00025	.69703      -.30021
0	.150	5.116	.11492	.72433	-.06175	.00358	.00107	0      .15866
0	3.000	-.002	.17905	.71120	-.00426	.00367	.00075	.72433      -.35510
0	.151	7.145	.11819	.75600	-.06220	.00388	.00089	0      .15634
0	3.000	-.002	.21128	.73543	-.00434	.00396	.00040	.75600      -.40561

0      .152      10.180      .11608      .78396      -.06396      .00407      .00105      0      .14807

0      2.000      -.001      .25279      .75111      -.00367      .00419      .00031      .78396      -.44697

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT.. (USE EDPM PROGRAMS 2K1784+624) JOB NO.(3509-31)

SAL NO. 201                    THETA=0,                    RUN NO. 11

TEST NO. RUN.LG6    ALPHA C    CL    CX    CPM    CYM.STAB CRM.STAB (DP/Q)B (L/D)

MACH NO.	REIT	YAW C (CN) BODY	(CA) BODY	(CY) BODY	CYM.BODY	CRM.BODY	CD	(X CP/D)
1204	17.153	-.004	.00175	.61070	-.00752	.00574	.00083	0      .00287
681	3.000	-.007	.00171	.61070	-.00903	.00574	.00083	.61070      -0
0	.154	-1.047	-.05710	.63023	.02050	.00151	.00068	0      -.09060
0	2.000	.003	-.06860	.62908	.00123	.00150	.00071	.63023      -.40118
0	.155	-2.079	-.09510	.65501	.03863	.00016	.00063	0      -.14519
0	2.000	.007	-1.1879	.65113	.00441	.00014	.00063	.65501      -.37484
0	.156	-3.103	-.11864	.67554	.04932	-.00052	.00096	0      -.17563
0	2.000	.008	-.15504	.66812	.00609	-.00057	.00093	.67554      -.38188
0	.157	-5.144	-.14740	.70970	.06169	-.00116	.00098	3      -.20769
0	2.000	.009	-.21042	.69363	.00688	-.00125	.00087	.70970      -.40685
3	.158	-10.220	-.16068	.76833	.05910	.00075	.00100	0      -.20913
0	2.000	.006	-.29442	.72764	.00378	.00056	.00111	.76833      -.49928
0	.159	1.041	.06209	.62960	-.03584	.00767	.00064	0      .09861
0	2.000	-.014	.07351	.62837	-.01541	.00768	.00050	.62960      -.21242

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## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JUB NO.(3509-31)

SAL NO. 201                    THETA=0,                    CONFIGURATION..(26)= E16 T11 C                    RUN NO. 17

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CY.M-STAB	CRM-STAB (DP/Q)B (L/D)	CD	(X CP/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM-BODY	CRM-BODY	CD	(X CP/D)
1204	17.160	2.074	.10293	.65769	-.05572	.00739	.00060	0	.15650
681	2.000	-.012	.12666	.65353	-.01382	.00741	.00034	.65769	-.26011
0	.161	3.101	.13003	.68590	-.06869	.00605	.00050	0	.18961
3	3.000	-.010	.16694	.67776	-.01144	.00607	.00017	.68580	-.28853
0	.162	5.142	.15863	.72262	-.08100	.00416	.00076	0	.21952
0	3.000	-.007	.22274	.70549	-.00765	.00421	.00039	.72262	-.33635
0	.163	7.176	.16906	.76029	-.08335	.00403	.00122	0	.22236
0	3.000	-.007	.26269	.73322	-.00754	.00415	.00071	.76029	-.38271
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## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201                    THE TA=0,                    CONFIGURATION.. (27)= E17 T11 C                    RUN NO. 18

TEST NO.	RUN LOG	ALPHA C	C1	CX	CPM	CYM, STAB	CRM, STAB	(DP/Q)B (L/D)		
MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYM. BODY	CRM. BODY	CD	(X) CP/D	
1204	18.165	.001	.00706	.56007	-.00779	-.00035	.00107	0	.01260	
681	2.000	-.006	.00706	.56007	-.00411	-.00035	.00107	.56007	-0	
0	166	-1.056	-.07550	.59090	.03018	-.00500	.00083	0	-.12777	
0	2.000	.012	-.08637	.58941	.01159	-.00501	.00073	.59090	-.35056	
A-28	0	167	-2.090	-.11768	.62311	.04951	-.00438	.00074	0	-.18885
0	2.000	.011	-.14032	.61840	.01062	-.00440	.00058	.62311	-.34715	
0	168	-3.118	-.14585	.65115	.06206	-.00525	.00099	0	-.22399	
0	2.000	.012	-.18104	.64225	.01232	-.00530	.00071	.65115	-.35718	
0	169	-5.164	-.18175	.70244	.07650	-.00526	.00115	0	-.25874	
0	2.000	.011	-.24422	.68323	.01172	-.00534	.00067	.70244	-.38675	
0	170	-10.248	-.19768	.78124	.06850	-.00267	.00145	0	-.25304	
0	2.000	.006	-.33349	.73362	.00615	-.00288	.00095	.78124	-.49460	
0	171	1.056	.08734	.59584	-.04619	-.00211	.00012	0	.114659	
0	3.000	-.011	.09830	.559413	-.00906	.00211	.00008	.59584	-.23011	



## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NJ.(3509-31)

SAL NO. 201

THE TA=0, CONFIGURATION..(28)= E18 T11 C

RUN NO. 19

TEST NO.	RUN NO.	ALPHA C	CL	CX	CPH	CYM. STAB	CRM. STAB	(DP/Q)B	(L/D)
MACH NO.	RELT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYM. BODY	CRM. BODY	CD	(X CP/D)
1204	19.177	- .001	.00544	.66954	-.00892	.00543	.00012	0	.00812
681	3.000	- .004	.00542	.66954	-.00687	.00543	.00012	.66954	-0
0	178	-1.029	- .02587	.67156	.00655	.00376	.00033	0	-.03852
0	2.000	- .001	- .03792	.67099	-.00358	.00376	.00040	.67156	-.52740
0	179	-2.055	- .05376	.67915	.01979	.00333	.00047	0	-.07916
0	2.000	- .301	- .07808	.67679	-.00183	.00331	.00059	.67915	-.44649
0	180	-3.079	- .07528	.69109	.02971	.00260	.00036	0	-.10892
0	2.000	.003	- .11228	.68605	-.00010	.00258	.00050	.69109	-.43540
0	181	-5.117	- .10161	.71143	.04128	.00151	.00048	0	-.14282
0	2.000	.003	- .16465	.69953	.00106	.00146	.00061	.71143	-.44927
0	182	-10.182	- .10732	.76108	.04360	.00319	.00046	0	-.14101
0	2.000	.004	- .24015	.73013	.00077	.00306	.00102	.76108	-.51844
0	183	1.028	.03940	.67315	-.02613	.00504	.00012	0	.05853
0	3.000	- .004	.05147	.67234	-.00632	.00504	.00003	.67315	-.19240

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NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201            THE TA=0,            CONFIGURATION..(28)= E18 T11 C            RUN NO. 19

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q)B (L/D)
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MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYM. BODY	CRM. BODY	CD	(X CP/D)
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1204	19.184	2.054	.06777	.68405	-.04016	.00573	.00017	0	.09907	
681	3.000	-.006	.09224	.58118	-.00850	.00573	-.00004	.68405	-.26467	
0	3.000	185	3.078	.08862	.69827	-.04986	.00500	.00024	0	.12691
0	3.000	-.005	.12597	.69251	-.00706	.00501	-.00003	.69827	-.30420	
A-31 0	186	5.116	.11344	.72640	-.06079	.00417	.00027	0	.15616	
0	3.000	-.004	.17775	.71339	-.00563	.00418	-.00010	.72640	-.35801	
0	187	7.145	.11859	.76003	-.06308	.00438	.00038	0	.15603	
0	3.000	-.004	.21218	.73938	-.00573	.00439	-.00016	.76003	-.40268	
0	188	10.180	.11631	.78804	-.06513	.00640	.00041	0	.14759	
0	2.000	-.003	.25373	.75509	-.00657	.00637	-.00073	.78804	-.44331	

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## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO.	201	THETA=0,	CONFIGURATION..(29)= E19 T11 C	RUN NO. 20				
TEST NO.	RUN LOG	ALPHA C	CX	CPM	CYM-STAB	CRM-STAB (DP/Q)B	(L/D)	
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CRM.BODY	CD	(X CP/D)
1204	20.189	-0	.00824	.01087	.00302	.00056	0	.01154
681	2.000	-.001	.00824	.00277	.00302	.00056	.71377	-0
0	.190	-1.030	-.02411	.71237	.00310	.00323	.00059	0
0	2.000	-0	-.03691	.71182	-.00252	.00322	.00064	.71237
0	.191	-2.058	-.05258	.01610	.00203	.00066	0	-.07312
0	2.000	.002	-.07836	.01673	.00015	.00200	.00074	.71908
0	.192	-3.085	-.07917	.073214	.02864	.00059	.00071	0
0	2.000	.004	-.11845	.02682	.00253	.00055	.00074	.73214
0	.193	-5.126	-.10840	.75730	.04174	.00009	.00095	0
0	2.000	.006	-.17562	.074459	.00391	.00001	.00095	.75730
0	.194	-10.191	-.10983	.79864	.04280	.00224	.00068	0
0	2.000	.005	-.24938	.76662	.00230	.00208	.00107	.79864
0	.195	1.030	.04000	.71917	-.02476	.00452	.00026	0
0	3.000	-.003	.05292	.71833	-.00505	.00453	.00018	.71917
0	3.000	-.003	.05292	.71833	-.00505	.00453	.00018	.71917

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0 .195 1.030 .04000 .71917 -.02476 .00452 .00026 0 .05562  
 0 2.000 .005 .05292 .71833 -.00505 .00453 .00018 .71917 -.023203 -.23203

## NAA SISD SUPersonic AERO Laboratory TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201      THEtA=0,      CONFIGURATION..(29)= E19 T11 C      RUN NO. 20

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYN. STAB	CRM. STAB	(DP/Q)B (L/D)	
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYN. BODY	CRM. BODY	CD	(X CP/D)
1204	20.196	2.059	.06978	.72844	-.03803	.00516	.00001	0	.09579
681	3.000	-.005	.09590	.72546	-.06698	.00515	-.00018	.72844	-.30341
0	.197	3.084	.09304	.74723	-.04946	.00544	.00013	0	.12451
0	3.000	-.005	.13310	.74114	-.00703	.00543	-.00016	.74723	-.32837
0	.198	5.0126	.12141	.77776	-.06282	.00475	.00039	0	.15611
0	3.000	-.004	.19040	.76380	-.00621	.00476	-.00004	.77776	-.37007
0	.199	7.151	.12017	.80410	-.06248	.00491	.00041	0	.14945
0	3.000	-.004	.21932	.78289	-.00620	.00492	-.00020	.80410	-.41513
3	.200	10.187	.11598	.82783	-.06400	.00481	.00069	0	.14011
0	3.000	-.003	.26054	.79428	-.00571	.00475	-.00076	.82783	-.45435

## NAA SJSD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201 RUN NO. 21  
TEST NO. RUN LOG CONFIGURATION.. (30)= E20 T11 C

MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CL	CX	CPY	CYM-STAB	CRM-STAB (DP/Q) B (L/D)	CRM-BODY	CD	(X CP/D)
1204	21.201	- .005	.00043	.60606	-.00727	.00977	.00086	0	.00071				
681	2.000	- .016	.00038	.60606	-.01807	.00977	.00086	.60606	-0				
0	2.002	-1.055	-0.07372	.65327	.03103	.00217	.00050	0	-11285				
0	2.000	.004	-.08573	.65180	.00119	.00216	.00054	.65327	-.33801				
0	203	-2.082	-.10484	.69455	.04800	-.00048	.00117	0	-15094				
0	2.003	.008	-.13000	.69028	.00564	-.00052	.00116	.69455	-.33076				
0	204	-3.109	-.13133	.72667	.06117	-.00093	.00095	0	-18073				
0	2.000	.009	-.17054	.71848	.00726	-.00098	.00090	.72667	-.34133				
0	205	-5.158	-.17297	.77553	.08093	-.00276	.00120	0	-22304				
0	2.000	.012	-.24199	.75684	.01512	-.000285	.00094	.77553	-.36556				
3	206	-10.228	-.17135	.87140	.08429	-.00075	.00149	0	-19663				
0	2.000	.009	-.32332	.82714	.00696	-.00100	.00133	.87140	-.43931				
0	207	1.051	.08387	.65642	-.05017	.01012	.00025	0	.12777				
0	3.000	-.017	.09589	.65477	-.01877	.01012	.0006	.65642	-.17679				

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## NAA SI SD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 THE TA=0, CONFIGURATION..(30)= E20 T11 C RUN NO. 21

TEST NO.	RUN LOG	ALPHA C	CL	CX	CP4	CYM-STAB	CRM-STAB (DP/QIB (L/D))
MACH NO.	REIT YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYM BODY	CRM BODY	CD (X CP/D)
1204	21.208	2.080	.11654	.70352	-.06772	.00777	.00028
681	4.000	-.011	.14199	.69883	-.01308	.00778	0
0	209	3.106	.14223	.73968	-.08151	.00770	.00036
0	3.000	-.010	.18209	.73089	-.01219	.00771	-.00006
0	210	5.154	.18054	.79456	-.10048	.00629	.00056
0	4.000	-.008	.25117	.77513	-.00976	.00631	-.00001
0	212	7.193	.19839	.83433	-.10812	.00596	.00039
0	3.000	-.006	.30128	.80293	-.00868	.00596	-.00036
0	213	10.229	.17838	.89816	-.09924	.00566	.00053
0	3.000	-.006	.33501	.85222	-.00812	.00567	-.00049

## NAASISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT... (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201                    THETA=0,                    CONFIGURATION.. (24)= E14 T11 C                    RUN NO. 22

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q) B	(L/D)	MACH NO.	REIT	YAW C	(CNI) BODY	(CAI) BODY	CYM. BODY	CRM. BODY	CD	(X CP/D)		
1204	22.214	-0	.00718	.68696	-.00987	.00309	-.00015	0	0	681	3.000	-.001	.00717	.68696	-.00282	.00309	-.00015	.68696	-.3	
0	.215	-1.026	-.01971	.68894	.00330	.00307	-.00011	0	0	0	3.000	-0	-.03204	.68848	-.00213	.00307	-.00006	.68894	-.02861	
0	.216	-2.047	-.03973	.69186	.01400	.00119	-.00047	0	0	0	2.000	.002	-.06441	.69000	.00080	.00117	.00051	.69186	-.05742	
0	.217	-3.069	-.05948	.69490	.02305	.00175	.00023	0	0	0	3.000	-.001	-.09659	.69071	-.00024	.00173	.00032	.69490	-.48267	
0	.218	-5.108	-.08559	.71298	.03449	.00207	.00044	0	0	0	2.000	-.001	-.14871	.70253	-.00054	.00202	.00063	.71298	-.12005	
0	.219	-10.173	-.09734	.76054	.04405	.00253	.00079	0	0	0	2.000	.004	-.23011	.73140	.00099	.00235	.00122	.76054	-.04601	
0	3.000	-.001	.04393	.68716	-.00326	.00319	.00014	0	0	0	3.000	-.004	.03165	.68783	-.02248	.00318	.00020	0	.68783	-.18824

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201      RUN LOG      ALPHA C      CL      CX      C2H      CYN STA3 CRM STA3 (DP/Q) B (L/D)  
THE TA=0,      CONFIGURATION..(24)= E14 T11 C      RUN NO. 22

TEST NO.	RUN LOG	ALPHA C	CL	CX	C2H	CYN STA3 CRM STA3 (DP/Q) B (L/D)
MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CRM. BODY CD (X CP/D)
1204	22.221	2.049	.05721	.69500	-.03532	.000297 .00025
681	3.000	-002	.08201	.69251	-.00318	.00298 .00015 .69500
0	.222	3.069	.07413	.70453	-.04382	.00291 .00031
0	3.000	-001	.11174	.69655	-.00278	.00292 .00015 .70453
0	223	5.107	.09819	.72693	-.05370	.00236 -.00001 .72693
0	3.000	-001	.16250	.71531	-.00212	.00237
0	224	7.131	.09733	.75839	-.05529	.00280 .00046
0	3.000	-0	.19070	.74045	-.00217	.00284 .00011 .75839
0	225	13.168	.10298	.78150	-.06354	.00333 .00053
0	3.000	-001	.23930	.75106	-.00340	.00337 -.00006 .78150
						-0.4346 -0.13178

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201                    THE TA=0, CONFIGURATION..(23)= E12 T11 C                    RUN NO. 23

TEST NO.    RUN LOG    ALPHA C    CL    CX    CPM    CYM. STAB    CRM. STAB (DP/QIB (L/D))

MACH NO.    REIT        YAW C    (CN) BODY    (CA) BODY    (CY) BODY    CRM. BODY    CD    (X) CP/D)

1204	23.0226	.001	.00882	.66620	-.00998	.00310	.00078	.0	.01323	
681	2.0000	-.001	.00883	.66620	-.00322	.00310	.00078	.66620	-0	
0	.2227	-1.030	-.02886	.66570	.00847	.00286	.00063	0	-.04335	
0	2.000	-0	-.04082	.66507	-.00210	.00285	.00068	.66570	-.49255	
A-38	0	.2228	-2.057	-.05752	.67681	.02246	.00193	.00061	0	-.08499
0	2.0000	.002	-.08177	.67431	-.00002	.00190	.00068	.67681	-.42534	
3	229	-3.080	-.07788	.69136	.03122	.00134	.00072	0	-.11264	
0	2.000	.003	-.11490	.68618	.00139	.00130	.00079	.69136	-.42831	
0	2.000	.231	-10.184	-.10876	.76419	.04351	.00321	.00066	0	-.14231
0	2.000	.005	-.24213	.73293	.00104	.00304	.00121	.76419	-.52030	
0	.232	1.029	.04158	.67160	-.02715	.00375	.00038	0	.06191	
0	3.000	-.003	.05363	.67074	-.00462	.00375	.00032	.67160	-.19379	

NAA SISD SUPersonic AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NJ.(3509-31)

SAL NO. 201                    THETA=0,                    CONFIGURATION..(23)= E12 T11 C

RUN NO. 23

TEST NO.	RUN.LG	ALPHA C	CL	CX	CPM	CYH. STAB	CRM. STAB	(DP/Q)B (L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYH. BODY	CRM. BODY	CD (X CP/D)

1204	23.233	2.357	.07124	.68518	-.04141	.00464	.00069	0	.10398
681	3.000	-.004	.09578	.68218	-.00581	.00466	.00052	.68518	-.26770
0	.234	3.081	.09353	.69873	-.05176	.00474	.00069	0	.13386
0	3.000	-.003	.13094	.69270	-.00578	.00477	.00044	.69873	-.30468
0	.235	5.117	.11334	.72831	-.05939	.00339	.00067	0	.15562
0	3.000	-.002	.17783	.71530	-.00372	.00344	.00037	.72831	-.36603
0	.236	7.146	.11975	.76040	-.06254	.00321	.00090	0	.15748
0	2.000	-.001	.21339	.73960	-.00300	.00329	.00049	.76040	-.40693
0	.237	10.181	.11661	.79008	-.06463	.00267	.00062	0	.14759
0	3.000	-.002	.25440	.75704	-.00303	.00273	.00014	.79008	-.44593

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## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K1178+624) JOB NO.(3509-31)

SAL V3. 201                    THETA=0,                    CONFIGURATION..(31)= E21 T11 C                    RUN NO. 24

TEST NO. RUN.LOG ALPHA C CL CX CPM CRM-STAB (DP/Q)B (L/D)

MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM.BODY CD (X CP/D)

1204	24.238	-0.009	.00911	.66863	-0.02506	.00180	.00107	0	.01363
681	2.000	-0	.00901	.66863	-0.00124	.00180	.00107	.66863	-0
0	.239	-1.039	-.02554	.67067	-.00932	.00142	.00094	0	-.03809
0	2.000	.002	-.03770	.67010	.00012	.00140	.00097	.67067	-.94732
0	.240	-2.068	-.05303	.67828	.00018	.00161	.00101	0	-.07818
3	2.000	.002	-.07746	.67592	.00051	.00157	.00106	.67828	-.69763
0	.241	-3.095	-.07587	.68602	.00549	.00216	.00105	0	-.11059
0	2.000	.002	-.11279	.68092	.00004	.00210	.00117	.68602	-.65131
0	.242	-5.142	-.10525	.71012	.00839	.00142	.00106	0	-.14821
0	2.000	.004	-.16846	.69783	.00198	.00132	.00118	.71012	-.65018
0	.243	-10.238	-.12663	.76653	-.01321	.00296	.00100	0	-.16520
0	2.000	.004	-.26083	.73182	.00061	.00274	.00151	.76653	-.75063
0	.244	1.022	.04280	.67409	-.03977	.00438	.00068	0	06349
3	2.000	-.002	.05481	.67322	-.00470	.00440	.00063	.67409	.02568

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## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201            THETA=0, CONFIGURATION..(31)= E21 T11 C

TEST NO. RUN LOG    ALPHA C    CL    CX    CPM    CYM-STAB    CRM-STAB (DP/Q)B (L/D)

MACH NO. REIT    YAW C (CN)BODY (CA)BODY (CY)BODY

1204    24.245    2.048    .06922    .68583    -.05117    .00464    .00079    0    .10093

681    3.000    -.004    .09369    .68292    -.00630    .00467    .00062    .68583    -.15379

0    246    3.074    .08891    .69832    -.05604    .00442    .00077    0    .12733

0    3.000    -.004    .12622    .69255    -.00568    .00446    .00054    .69832    -.25603

0    247    5.127    .11369    .72741    -.04394    .00290    .00045    0    .15629

0    3.000    -.003    .17823    .71434    -.00448    .00293    .00019    .72741    -.45349

0    248    7.164    .12355    .75653    -.04050    .00304    .00070    0    .16331

0    3.000    -.003    .21691    .73523    -.00433    .00311    .00031    .75653    -.51330

0    249    10.210    .12340    .78701    -.02986    .00275    .00073    0    .15680

0    3.000    -.002    .26092    .75268    -.00367    .00283    .00024    .78701    -.58556

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SID 62-753

## NAASISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201            THE TA=0, CONFIGURATION. (31)= E21 T11 C

RUN NO. 25

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q18 (L/D))
MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYM. BODY	CRM. BODY	CD (X CP/D)

1204	25.250	-0001	.02226	.77018	-.03020	-00092	.00087	0	.02891	
1575	2.000	.014	.02225	.77018	.00610	-00092	.00087	.77018	-0	
0	.251	-1.054	-.01173	.77414	-.01117	-.01054	.00055	0	-.01515	
0	2.000	.016	-.02597	.77380	.00659	-00055	.00054	.77414	-1.13033	
0	.252	-2.105	-.03933	.78425	.00140	-.00186	.00052	0	-.05015	
0	2.000	.016	-.06811	.78227	.00775	-.00188	.00045	.78425	-.67948	
0	.253	-3.149	-.05716	.79712	.00749	-.00090	.00073	0	-.07171	
0	2.000	.015	-.10086	.79278	.00662	-00094	.00068	.79712	-.62577	
0	.254	-5.245	-.09704	.82996	.02167	.00037	.00122	0	-.11693	
0	2.000	.013	-.17249	.81761	.00492	.00026	.00125	.82996	-.57439	
0	2.000	.017	-.31631	.90409	.00509	.00224	.00129	.94651	-.62821	
0	2.000	.011	-.04669	-.14679	.94651	.02271	.00243	.00086	0	-.15509

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## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JGB NO. (3509-31)

SAL NO. 201

THETA=0, CONFIGURATION. (31)= E21 T11 C

RUN NO. 25

TEST NO. RUN. LOG ALPHA C CL CX CPY CRM-STAB CRM-STAB (DP/Q)B (L/D)

MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CRM.BODY	CRM.BODY	CD	(X CP/D)
1204	25.258	2.096	.07229	.79131	-.05248	.00176	-.00043	0	.09135
1575	2.000	.007	.10118	.78813	.00148	.00177	.00037	.79131	-.18130
0	259	3.139	.09158	.81007	-.06228	.00349	.00042	0	.11305
0	2.000	-.003	.13580	.80384	-.00125	.00351	.00023	.81007	-.24139
0	260	5.226	.12510	.85354	-.07767	.00492	.00063	0	.14657
0	3.000	-.001	.20231	.83860	-.00385	.00496	.00018	.85354	-.31609
0	261	7.308	.14276	.91040	-.08198	.00280	.00216	0	.15681
0	2.000	-.004	.25738	.88485	-.00059	.00305	.00179	.91040	-.38148
0	262	10.428	.15669	.95998	-.07455	.00348	.00219	0	.16323
0	3.000	-.002	.32783	.91578	-.03361	.00381	.00153	.95998	-.47259

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## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201      THE TA=20,      CONFIGURATION. (31)= E21 T11 C      RUN NO. 26

TEST NO.      RUN LOG      ALPHA C      CL      CX      CPM      CRM-STAB (DP/Q18 LL/DI)

MACH NO.      REIT      YAW C      (CN)BODY      (CA)BODY      CYMBODY      CRM.BODY      CD      (X CP/DI)

1204	26.263	20.532	.21962	.89416	.02215	.01822	.00455	0	.24561
1575	2.000	.043	.51922	.76038	.00426	.01866	-.00213	.89416	-.74267
0	.264	15.330	.20851	.82510	-.02572	.01458	.00196	0	.25270
0	2.000	.030	.41919	.74063	.00158	.01458	-.00196	.82510	-.63863
0	.265	10.105	.17990	.86420	-.07596	.00944	.00019	0	.20817
0	2.000	.020	.32870	.81925	.00149	.00933	-.00147	.86420	-.46891
0	.266	25.726	.19906	1.05326	.06719	.01994	.00639	0	.18899
0	2.000	.039	.63645	.86251	.00087	.02074	-.00290	1.05326	-.80558

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NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JGB NO.(3509-31)

SAL NO. 201      THETA=20, CONFIGURATION..(30)= E20 T11 C

RUN NO. 27

TEST NO. RUN LOG    ALPHA C    CL    CX    CPM    CYM-STAB    CRM-STAB    IDP/Q1B (L/D)  
MACH NO. REIT    YAN C (CN)BODY (CA)BODY (CY)BODY CRM-BODY CRM-BODY CD (X CP/D)

1204	27.268	20.422	.22383	.98402	-.08707	.01580	.00298	0	.22747
1575	2.000	.031	.55307	.84411	.00088	.01584	-.00272	.98402	-.54257
0	.269	15.214	.19930	.89780	-.11199	.01121	-.00029	0	.22198
0	2.000	-.004	.42787	.81406	-.00652	.01074	-.00322	.89780	-.43827
0	.270	10.028	.18950	.94036	-.14457	.00735	-.00025	0	.23151
0	2.000	.013	.35032	.89301	-.00012	.00719	-.00153	.91036	-.28731
0	.271	25.575	.19194	1.12663	-.06755	.01066	.00079	0	.17036
0	4.000	-.005	.65940	.93344	-.00577	.00996	-.00388	1.12663	-.59756

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0	.272	30.776	.19020	1.19969	-.04891	.00985	-.00192	0	.15854
0	3.000	-.019	.77718	.93350	-.01450	.00748	-.00669	1.19969	-.63707

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## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JGB NO.(3509-31)

SAL NO. 201            THETA=20,            CONFIGURATION..(32)= E22 T11 C            RUN NO. 28

TEST NO.	RUN.LG6	ALPHA C	CL	CX	CPM	CYM.STAB	CRM.STAB	(DP/Q)B	(L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM.BODY	CRM.BODY	CD	(X CP/D)
1204	28.273	20.375	.19541	.93054	-.08025	.01044	-.00072	0	.21000
1575	2.000	-.008	.50711	.80432	-.01056	.00954	-.00431	.93054	-.54174
0	.274	15.206	.18806	.87497	-.10306	.01105	.00004	0	.21493
0	2.000	-.005	.41092	.79503	-.00593	.01067	-.00286	.87497	-.44919
0	.275	10.049	.18682	.88805	-.12849	.00889	-.00093	0	.21108
0	2.000	-.009	.33836	.83889	-.00297	.00859	-.00247	.88505	-.32025
0	.276	25.523	.16125	1.09272	-.06142	.00943	.00037	0	.14757
0	3.000	-.002	.61625	.91666	-.00756	.00867	-.00373	1.09272	-.60034
0	.277	30.758	.18457	1.15562	-.03861	.00921	-.00027	0	.15972
0	2.000	-.005	.74952	.89874	-.00857	.00778	-.00494	1.15562	-.64849

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT... (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201      THETA=0,      CONFIGURATION.. (32)= E22 T11 C      RUN NO. 29

TEST NO. RUN.LOG    ALPHA C    CL    CX    CPM    CYM-STAB (DP/Q)B (L/D)

MACH NO. REIT    YAW C (CN)BODY (CA)BODY (CY)BODY (CM)BODY CRM.BODY CRM.CD (X CP/D)

1204	29.278	.011	.02057	.82168	-.01843	.00163	.00130	0	.02503
1575	2.000	.013	.02072	.82168	.00396	.00163	.00130	.82168	-0
0	.279	-1.039	-.01412	.84310	.00638	.00166	.00157	0	-.01675
0	2.000	.014	-.02940	.84271	.00422	.00163	.00160	.84310	-.48310
3	.280	-2.088	-.04899	.84768	.03163	.00065	.00163	0	-.05779
0	2.000	.017	-.07983	.84533	.00608	.00059	.00165	.84768	-.30378
0	.281	-3.126	-.06994	.86478	.04852	.00211	.00182	0	-.08087
0	2.000	.015	-.11698	.85968	.00460	.00200	.00193	.86478	-.28524
0	.282	-5.208	-.10694	.91972	.07583	.00321	.00181	0	-.11627
3	2.000	.015	-.18996	.90622	.00381	.00303	.00213	.91972	-.30081
0	.283	-10.376	-.13646	1.01977	.13378	.00301	.00134	0	-.13381
0	2.000	.018	-.31786	.97853	.00513	.00272	.00186	1.01977	-.37352
0	.284	1.059	.05465	.84516	.00174	.00297	.00118	.84631	0 .06458
0	2.000	.010	.07028	.84516	.00174	.00297	.00118	.84631	-.08127

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT... (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201            THETA=0,            CONFIGURATION.. (32)= E22 T11 C            RUN NO. 29

TEST NG. RUN LOG    ALPHA C    CL    CX    CPM    CRM-STAB    CRM-STAB : DP/J18 (L/C)  
MACH NO. REIT    YAW C (CN) BODY (CA) BODY (CY) BODY CRM.BODY CD (X CP/D)

1204	29.285	2.105	.08304	.86351	-.06378	.00355	.00090	0	.09617
1575	2.000	.008	.11469	.85988	.00076	.00358	.00077	.86351	-.14394
0	.286	3.142	.10274	.88255	-.08012	.00559	.00143	0	.11641
0	2.000	-.004	.15095	.87559	-.32264	.00566	.00112	.88255	-.16921
0	.287	5.218	.13466	.93119	-.10601	.00569	.00202	0	.14461
0	2.000	-.003	.21878	.91509	-.00297	.00585	.00149	.93119	-.21547
0	.288	7.288	.15339	.97899	-.12384	.00544	.00225	0	.15669
0	2.000	-.002	.27632	.95163	-.00313	.00569	.00155	.97899	-.25184
0	.289	10.374	.14967	1.03055	-.12686	.00626	.00261	0	.14523
0	2.000	-.002	.33276	.98677	-.00561	.00663	.00144	1.03055	-.31876

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201      THETA=0, CONFIGURATION..(30)= E20 T11 C

RUN NO. 30

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYN. STAB	CRM. STAB	(DP/Q)B (L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYN. BODY	CRM. BODY	CD (X CP/D)
1204	30.290	.012	.02349	.76190	-.02092	.00110	.00123	0 .03082
1575	2.000	.012	.02365	.76189	.00382	.00110	.00123	.76190 -0
0	.291	-1.039	-.02031	.77172	.01265	-.00103	.00163	0 -.02632
0	2.000	.016	-.03430	.77123	.00716	-.00106	.00161	.77172 -.33112
0	.292	-2.063	-.05156	.79129	.03590	-.00105	.00162	0 -.06516
0	2.000	.017	-.08028	.78889	.00740	-.00111	.00158	.79129 -.25281
0	.293	-3.123	-.07693	.81781	.05631	.00116	.00154	0 -.09406
0	2.000	.017	-.12136	.81241	.00583	.00108	.00160	.81781 -.23599
0	.294	-5.205	-.11817	.87713	.08780	-.00174	.00162	0 -.13473
0	2.000	.018	-.19724	.86280	.00583	.00159	.00177	.87713 -.25487
0	.295	-10.370	-.14370	1.01871	.11762	.00166	.00115	0 -.14106
0	2.000	.019	-.32469	.97622	.00654	.00143	.00143	1.01871 -.33775
0	.296	1.057	.05738	.78797	-.04712	.00150	.00097	0 .07282
0	2.000	.012	.07190	.78678	.00350	.00152	.00094	.78797 -.34466

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SID 62-753

NAASISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 THE TA=0, CONFIGURATION. (30)= E20 T11 C RUN NO. 30

TEST NG. RUN.LOG ALPHA C CL CX CPM CYM-STAB CRM-STAB (DP/QIB LL/DI)

MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM.BODY CD (X CP/D)

1204	30.297	2.098	.08322	.81233	-.06645	.00307	.00064	0	.03245
1575	2.000	.012	.11291	.80874	.00241	.00309	.00053	.81233	-.11147
0	.298	3.138	.10618	.84019	-.08500	.00335	.00070	0	.03237
0	2.000	.010	.15200	.83312	.00146	.00339	.00052	.84019	-.14082
0	.299	5.213	.14130	.89646	-.11476	.00443	.00142	0	.03762
0	2.000	-.007	.22215	.87991	-.00075	.00454	.00101	.89646	-.18339
3	.300	7.283	.16107	.96157	-.13530	.00495	.00200	0	.03750
0	2.000	-.006	.28164	.93341	-.00158	.00517	.00135	.96157	-.21958
0	.301	10.374	.16000	1.03459	-.14101	.00577	.00235	0	.03465
0	2.000	-.002	.34365	.98887	-.00377	.00610	.00128	1.03459	-.28967

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+ 624) JOB NO. (3509-31)

SAL NO. 201            THETA=0,            CONFIGURATION..(32)= E22 T11 C            RUN NO. 31

TEST NO. RUN.LGG    ALPHA C            CL            CX            CPM            CRM.STAB    CRM.STAB (DP/Q)B (L/D)

MACH NO. REIT        YAW C    (CN)BODY    (CA)BODY    (CY)BODY    CRM.BODY    CRM.BODY    CRM.BODY    CRM.BODY

1204	31.302	.001	.00891	.66936	-.01087	.00457	.00108	0	.01332	
681	2.000	-.003	.00892	.66936	-.00550	.00457	.00108	.66936	-0	
0	.303	-1.042	-.04804	.68366	.01668	.00212	.00112	0	-.07026	
0	2.000	.004	-.36046	.68267	.00122	.00210	.00116	.68366	-.42407	
A-51	0	.304	-2.071	-.07826	.71671	.03124	.00101	.00115	0	-.13919
0	2.000	.006	-.10410	.71342	.00371	.00097	.00119	.71671	-.39989	
0	.305	-3.091	-.09288	.74262	.03837	.00111	.00125	0	-.12507	
0	2.000	.007	-.13278	.73653	.00387	.00104	.00131	.74262	-.41104	
0	.306	-5.0124	-.10789	.77402	.04606	.00159	.00121	0	-.13939	
0	2.000	.006	-.17658	.76129	.00337	.00147	.00134	.77402	-.43915	
0	.307	-10.190	-.11940	.81116	.05953	.00255	.00112	0	-.14719	
0	2.000	.006	-.26099	.77725	.00231	.00156	.81116	-.47189		
0	.308	1.040	.06128	.69076	-.03794	.00558	.00084	0	.08871	
0	3.000	-.007	.07380	.68954	-.00859	.00559	.00074	.69076	-.18585	

SID 62-753

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 THE TA=0, CONFIGURATION..(32)= E22 T11 C RUN NO. 31

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYN. STAB	CRM. STAB	(DP/Q1B (L/D))
MACH NO.	REIT	VAN C	(CN) BODY	(CA) BODY	(CY) BODY	CYN. BODY	CRM. BODY	CD (X CP/D)

1204	31.309	2.069	.09054	.72794	-.05113	.00549	.00098	0 .12438
681	3.000	-.006	.11676	.72420	-.00828	.00553	.00378	.72794 -.26205
0	3.000	3.089	.10495	.75777	-.05826	.00408	.00123	0 .13850
0	3.000	-.005	.14563	.75101	-.00656	.00414	.00101	.75777 -.29992
0	311	5.124	.12111	.78234	-.06551	.00233	.00123	0 .15480
0	3.000	-.002	.19048	.76840	-.00283	.00243	.00102	.78234 -.35607
0	312	7.153	.13080	.79883	-.07357	.00313	.00132	0 .16374
0	2.000	-0	.22923	.77633	-.01214	.00326	.00092	.79883 -.37905
0	313	10.189	.13046	.83697	-.08160	.00398	.00158	0 .15588
0	2.000	-0	.27643	.80070	-.00297	.00420	.00085	.83697 -.40482

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201 THE TA=0, CONFIGURATION..(32)= E22 T11 C

RUN NO. 32

TEST NG.	RUN. LOG	ALPHA C	CL	CX	CPM	CYM-STAB	CRM-STAB (DP/Q1B (L/D))	CD	(X CP/D)
1204	32.314	.004	.01886	.65226	-.01544	.00553	.00115	0	.02891
3270	2.000	-.002	.01890	.65226	-.00156	.00553	.00115	.65226	-0
0	.315	-1.021	-.04772	.64110	.02317	.00456	.00104	0	-.07444
0	2.000	.003	-.05914	.64015	.00045	.00454	.00112	.64110	-.30826
0	.316	-2.038	-.09374	.63163	.05238	.00540	.00059	0	-.14841
0	2.000	-.002	-.11614	.62790	-.00124	.00538	.00078	.63163	-.24898
0	.317	-3.054	-.12836	.63094	.07221	.00575	.00098	0	-.23343
0	2.000	-.001	-.16178	.62321	-.00252	.00569	.00128	.63094	-.25368
0	.318	-5.076	-.16028	.66460	.08878	.00561	.00065	0	-.24117
0	2.000	-.002	-.21844	.64781	-.00204	.00553	.00115	.66460	-.29359
0	.319	-10.127	-.21315	.74883	.11723	.00542	.00044	0	-.28464
0	2.000	-.002	-.34147	.69969	-.00188	.00525	.00138	.74883	-.35669
0	.320	1.025	.07543	.63280	-.05002	.00684	.00126	0	.11921
0	2.000	-0	.08673	.63135	-.00498	.00686	.00114	.63280	-.12324

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SID 62-753

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201      THE TA=0 , CONFIGURATION..(32)= E22 T11 C      RUN NO. 32

TEST NO. RUN LOG ALPHA C CL CX CPM CYN-STAB CRM-STAB (DP/Q)B (L/D)  
MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CYN.BODY CRM.BODY CD (X CP/D)

1204	32.321	2.043	.11993	.62462	-.07561	.00802	.00075	0	.19200	
3270	2.000	-.001	.14211	.61995	-.00701	.00804	.00046	.62462	-.16794	
0	.322	3.057	.15005	.63027	-.09322	.00880	.00094	0	.23808	
0	2.000	-.002	.18344	.62138	-.00848	.00884	.00047	.63027	-.19184	
A-54	0	.323	5.080	.18668	.66513	-.11241	.00858	.00160	0	.28067
3	2.000	-.002	.24483	.64599	-.00844	.00869	.00083	.66513	-.24087	
0	.324	7.097	.19580	.70399	-.11778	.00975	.00176	0	.27812	
0	2.000	-.003	.28125	.67441	-.01102	.00989	.00055	.70399	-.28122	

0	.325	10.127	.23034	.75136	-.13948	.01136	.00246	0	.30656
0	2.000	-.005	.35885	.69916	-.01455	.01161	.00043	.75136	-.31132

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201 THE TA=0, CONFIGURATION. (30)= E20 T11 C RUN NO. 33

TEST NO.	RUN#	LGG	ALPHA	C	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q)B (L/D)
MACH NO.	REIT	YAW	C	(CN)BODY	(CA)BODY	(CY)BODY	CRM.BODY	CRM.BODY	(X CP/D)
1204	33.326	.004	.02207	.51952	-.01765	.01185	.00118	0	.04248
3270	2.000	-.005	.02211	.51952	-.01444	.01185	.00118	.51952	-0
0	3.27	-1.018	-.05091	.52280	.03249	.01169	.00048	0	-.09738
0	3.000	-.005	-.06018	.52182	-.01403	.01168	.00068	.52280	-.16008
0	328	-2.035	-.10036	.53735	.06554	.00845	.00040	0	-.18676
0	3.000	-.003	-.11937	.53345	-.00944	.00843	.00070	.53735	-.15100
0	329	-3.049	-.13199	.56021	.08510	.00660	.00070	0	-.23561
0	2.000	-.001	-.16159	.55240	-.00617	.00655	.00105	.56021	-.17339
0	.330	-5.072	-.16403	.62306	.09828	.00660	.00020	0	-.26327
0	2.000	-.001	-.21847	.60612	-.00591	.00656	.00078	.62306	-.25012
0	.331	-10.121	-.19307	.75258	.10831	.00491	.00072	0	-.25655
0	2.000	-.001	-.32229	.70695	-.00207	.00470	.00157	.75258	-.36394
0	.332	1.025	.08564	.52328	-.06087	.01168	.00123	0	.16366
0	2.000	-.005	.09498	.52166	-.01433	.01170	.00102	.52328	-.35914

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SID 62-753

## NAA SJSD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NJ.(3509-31)

SAL NO. 201

THE TA=0, CONFIGURATION..(30)= E20 T11 C

RUN NO. 33

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM-STAB	CRM-STAB (DP/Q)B	(L/D)
MACH NO.	RELT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM.BODY	CRM.BODY	CD (X CP/D)

1204	33.333	2.040	.12743	.53876	-.08755	.01058	.00075	0 .23652
3270	2.000	-.005	.14652	.53388	-.01305	.01060	.00037	.53876 -.10247
0	.334	3.053	.15366	.56741	-.10349	.01282	.00109	0 .27081
0	2.000	-.006	.18366	.55842	-.01617	.01286	.00041	.56741 -.13653
0	.335	5.077	.18565	.63242	-.11621	.00811	.00153	0 .29356
0	2.000	-.003	.24088	.61351	-.00945	.00821	.00080	.63242 -.21755
0	.336	7.095	.19794	.68639	-.12094	.00931	.00220	0 .28839
3	2.000	-.005	.28120	.65669	-.01219	.00951	.00104	.68639 -.26990
0	.337	10.123	.21166	.76004	-.13004	.00972	.00253	0 .27848
0	3.000	-.005	.34192	.77103	-.01336	.01002	.00078	.76004 -.31967

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SID 62-753

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. USE EDPM PROGRAMS 2K1784624) JOB NO. (3509-31)

SAL NO. 201      THETA=20, CONFIGURATION..(30)= E20 T11 C      RUN NO. 34

TEST NO.	RUN.LG6	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q)B (L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM.BODY	CRM.BODY	CD (X CP/D)
1204	34.338	20.123	.28855	1.01079	-.19860	.01310	-.00014	0 .28547
3273	3.000	-.001	.61862	.84985	-.01085	.01226	-.00464	1.01079 -.37897
0	3.000	.339	15.074	.25460	.86482	-.16422	.01191	-.00144 0 .29439
0	3.000	-0	.47071	.76887	-.00851	.01113	-.00449	.86482 -.35112
0	.340	10.036	.22275	.74462	-.13422	.00914	-.00047	0 .29915
0	2.000	-.002	.34907	.59442	-.00404	.00892	-.00206	.74462 -.31551
0	.341	25.180	.29737	1.19098	-.21759	.01382	.00032	0 .24968
0	2.000	-.001	.77575	.95136	-.00931	.01265	-.00559	1.19098 -.41951
0	.342	30.231	.23658	1.31272	-.17666	.01872	.00119	0 .18022
0	2.000	-.004	.86525	1.01516	-.01824	.01678	-.00840	1.31272 -.49583

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SID 62-753

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. USE EDPM PROGRAMS 2K178+6241 JOB NO. (3509-31)

SAL NO. 201 THE TA=20, CONFIGURATION..(32)= E22 T11 C RUN NO. 35

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM-STAB	CRM-STAB (DP/Q)B (L/D)
MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYM. BODY	CRM. BODY CD IX CP/D
1204	35.343	20.162	.38141	.99389	-.21426	.01420	-.00053 0 .38376
3270	3.000	-3031	.70056	.80157	-.01194	.01315	-.00539 .99389 -.39416
0	344	15.095	.30946	.84857	-.18034	.01274	-.00190 0 .36469
0	2.000	-0	.51973	.73872	-.00963	.01181	-.00516 .84857 -.35302
0	.345	10.042	.24249	.73834	-.14377	.00914	-.00065 0 .32843
3	2.000	-.002	.36750	.68476	-.00426	.00888	-.00223 .73834 -.30880
0	346	25.208	.34185	1.10976	-.17906	.01445	-.00013 0 .30804
0	2.000	-.001	.78188	.85854	-.01107	.01302	-.00626 1.10976 -.47099
0	347	30.259	.29710	1.20382	-.14075	.01764	.00106 0 .24680
0	2.000	-.004	.86314	.89018	-.01730	.01577	-.00797 1.20382 -.53693

## NAASISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(IUSE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(33)=E23 T11 C (Z/D)=.044, RUN NO. 36

TEST NO. RUN.LOG ALPHA C CL CX CPM CRM.STAB CRM.STAB (DP/Q1B (L/D)

MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM.BODY CRM.BODY CD (X CP/D)

1204	36.348	-0.007	-0.00588	.59072	.02239	.00083	.00100	0	-.00995
681	3.000	-0.002	-0.00595	.59072	-.00174	.00083	.00100	.59072	-0
0	.349	-1.047	-0.05702	.61038	.04029	.00039	.00209	0	-.09341
0	2.000	.006	-0.06816	.60924	.00416	.00035	.00210	.61038	-.41211
0	.350	-1.046	-0.05644	.60442	.03976	.00274	.00158	0	-.09339
0	2.000	.003	-0.06747	.60329	-.00003	.00271	.00163	.60442	-.41416
0	.351	-2.083	-0.10343	.63550	.05902	.00156	.00193	0	-.16276
0	2.000	.006	-0.12646	.63132	.00321	.00149	.00198	.63550	-.36297
0	.352	-3.114	-0.14197	.66552	.07602	.00039	.00189	0	-.21332
0	2.000	.007	-0.17791	.65683	.00506	.00029	.00191	.66552	-.34515
0	.353	-5.163	-0.18739	.72866	.09687	-.00056	.00208	0	-.25718
0	2.000	.011	-0.25219	.70884	.00856	-.00075	.00202	.72866	-.34956
0	.354	-7.200	-0.20444	.77989	.10238	-.00209	.00243	0	-.26214
0	2.000	.011	-0.30055	.74812	.01009	-.00237	.00215	.77989	-.37890

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SID 62-753

NAA SISD SUPersonic AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JGB NO. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION.. (33)=E23 T11 C (Z/D)=.044, RUN NO. 36

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q)B (L/D)
MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYM. BODY	CRM. BODY	CD (X CP/D)
1204	36.355	-10.237	-.19469	.82577	.09352	-.00175	.00250	0 -.23576
681	2.000	.010	-.33832	.77803	.00926	-.00216	.00215	.82577 -.43476
0	.356	-10.237	-.19241	.82800	.09189	-.00065	.00176	0 -.23238
0	2.000	.010	-.33648	.78063	.00803	-.00095	.00162	.82800 -.43899
0	2.000	-.017	.06506	.60512	-.01756	.00672	-.00012	0 .08924
0	.358	2.077	.10710	.63550	-.01712	.00590	.00061	0 .16853
0	2.000	-.015	.13006	.63120	-.01577	.00592	.00039	.63550 -.26481
0	.359	3.110	.14869	.66973	-.03319	.00521	.00078	0 .22202
0	2.000	-.014	.18480	.66068	-.01417	.00524	.00050	.66973 -.27307
0	.360	5.161	.19885	.74122	-.05240	.00388	.00119	0 .26828
0	2.000	-.010	.26471	.72033	-.01012	.00398	.00083	.74122 -.29230
0	.361	7.199	.21855	.79458	-.05674	.00276	.00108	0 .27505
0	3.000	-.006	.31639	.76094	-.00694	.00287	.00073	.79458 -.32483

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION.. (33)=E23 T11 C (Z/D)=.044, RUN NO. 36

TEST NO.	RUN. LOG	ALPHA C	CL	CX	CPM	CYN. STAB	CRM. STAB	(DP/Q)B (L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYN. BODY	CRM. BODY	CD (X CP/D)
1204	36.362	10.238	.20677	.85005	-.04475	.00294	.00083	0 .24324
681	3.000	-.003	.35453	.79978	-.00456	.00304	.00029	.85005 -.38451

NAA SISD SUPersonic AERO LABORATORY TEST DATA PRINTOUT. USE EDPM PROGRAMS 2K178+6241 JGB NO. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION.. (34)=E24 T11 C (Z/D)=.044, RUN NO. 37

TEST NO. RUN LOG ALPHA C CL CX CPM CYM. STAB CRM. STAB (DP/QIB (L/D))

MACH NO. REIT YAW C (CN) BODY (CA) BODY (CY) BODY CRM.BODY CRM. BODY CD (X CP/D)

1204	37.363	-0.011	-0.00974	.54890	.02003	.00924	-0.00016	0	-0.01775
681	2.000	-0.020	-0.00985	.54833	-0.2183	.00924	-0.00016	.54890	-0
0	0.364	-1.058	-0.08253	.58503	.05361	.00386	.00072	0	-0.14108
0	2.000	-0.001	-0.09332	.58341	-0.0369	.00385	.00079	.58503	-0.31060
3	0.365	-2.086	-0.11562	.60575	.06564	.00094	.00112	0	-0.19087
0	2.000	0.004	-0.13759	.60114	.00230	.00089	.00116	.60575	-0.32515
0	0.366	-3.123	-0.16373	.63991	.08592	.00018	.00155	0	-0.25586
0	2.000	0.006	-0.19835	.63034	.00419	.00010	.00156	.63991	-0.31057
0	0.367	-5.179	-0.22305	.73268	.11695	.00074	.00171	0	-0.30464
3	2.000	0.007	-0.28826	.70956	.00458	.00058	.00177	.73268	-0.31260

0	368	-7.218	-0.24689	.79726	.12991	-0.00114	.00206	0	-0.30967
0	2.000	0.010	-0.34508	.75993	.00853	-0.00139	.00190	.79726	-0.33044
0	0.369	-10.260	-0.23604	.88201	.12400	-0.00205	.00216	0	-0.26761
0	2.000	0.011	-0.38934	.82587	.00977	-0.00240	.00176	.88201	-0.38484

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+6241) JOB NJ. (3509-31)

SAL NO. 201 (X/D)=.61, THE TA=0, CONFIGURATION. (34)=E24 T11 C (Z/D)=.044, RUN NO. 37

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYN-STAB	CRM-STAB	(DP/Q1B (L/D))
MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYN-BODY	CRM-BODY	(X CP/D)
1204	37.370	1.049	.08271	.58542	-.01534	.00858	.00023	0 .14129
681	2.000	-.021	.09342	.58381	-.02213	.00858	.00007	.58542 -.17077
0	.371	2.080	.11810	.60757	-.02485	.00729	.00060	0 .19438
0	2.000	-.018	.14008	.60289	-.01846	.00731	.00034	.60757 -.24326
0	372	3.119	.16930	.64693	-.04513	.00805	.00046	0 .26170
0	2.000	-.019	.20424	.63676	-.02032	.00806	.00002	.64693 -.25185
0	373	5.175	.23249	.74203	-.07312	.00852	.00090	0 .31331
0	2.000	-.019	.29845	.71804	-.02023	.00857	.00013	.74203 -.25915
0	374	7.216	.25794	.82245	-.08334	.00464	.00093	0 .31362
0	2.000	-.012	.35918	.78355	-.01281	.00472	.00034	.82245 -.28199
0	375	10.262	.25359	.90007	-.07387	.00389	.00113	0 .28175
0	2.000	-.009	.40986	.84051	-.01008	.00403	.00042	.90007 -.33953

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION.. (35)= E25 T11 C (Z/D)=.044, RUN NO. 38

TEST NO. RUN LOGG ALPHA C CL CX CPM CRM. STAB CRM. STAB (DP/QIB (L/D))

MACH NO. REIT YAW C (CN) BODY (CA) BODY (CY) BODY CRM. BODY CRM. BODY CD (X CP/D)

1204	38.376	-0.007	-0.00290	0.49939	.01570	.01347	-0.00120	0	-0.00580
681	2.000	-0.029	-0.00296	0.49938	-0.03149	.01347	-0.00120	0.49939	0
0	0.377	-1.056	-0.08785	0.55092	.06082	.00414	.00029	0	-0.15947
0	2.000	-0.004	-0.09799	0.54921	-0.06066	.00414	.00037	0.55092	-0.23596
0	0.378	-2.084	-0.12341	0.58726	.07701	.00051	.00079	0	-0.21015
0	2.000	0.002	-0.14468	0.58239	.00124	.00048	.00081	0.58726	-0.25486
0	0.379	-2.083	-0.12105	0.58727	.07636	.00123	.00071	0	-0.20613
0	3.000	-0.001	-0.14231	0.58248	-0.00021	.00120	.00075	0.58727	-0.25353
0	380	-3.116	-1.6246	0.52288	.09331	.00025	.00129	0	-0.26083
0	2.000	0.004	-0.19608	0.61313	.00295	.00018	.00130	0.62288	-0.27168
0	381	-5.172	-0.22175	0.73371	.12461	.00095	.00135	0	-0.30222
0	2.000	0.005	-0.28698	0.71074	.00320	.00083	.00143	0.73371	-0.28477
0	382	-7.225	-0.26940	0.83936	.15456	-0.00107	.00209	0	-0.32095
0	2.000	0.009	-0.37281	0.79883	.00801	-0.00133	.00194	0.83936	-0.28968

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. USE EDPN PROGRAMS 2K178+624) J68 NO. (3509-31)

SAL NG. 201 (X/D)=.61, THE TA=0, CONFIGURATION..(35)= E25 T11 C (Z/D)=.044, RUN NG. 38

TEST NO.	RUN LOG	ALPHA C	CX	CPM	CYN•STAB	CRM•STAB	108/Q18	(L/D)	MACH NO.	RELT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CRM•BODY	CD	(X CP/D)	
1204	38.383	-10.276	-0.26774	.95004	.15710	-0.00214	.000219	0	0	2.000	-0.019	.10141	.55393	-0.02043	.00874	.00006	0	
681	2.000	.012	-4.3289	.88705	.01060	-0.00249	.00178	.00015	0	2.000	-0.017	.20373	.61805	-0.01884	.00797	-0.00004	.000012	
0	384	1.050	.09124	.55570	-0.02507	.00874	.000010	.000010	0	385	2.080	.12937	.59102	-0.03951	.00746	.000015	0	
0	0	0	0	0	0	0	0	0	0	0	2.000	-0.017	.20373	.61805	-0.01884	.00797	-0.00004	.000012
0	0	0	0	0	0	0	0	0	0	0	386	3.112	.16988	.62820	-.05449	.00796	.000039	0
0	0	0	0	0	0	0	0	0	0	0	387	5.179	.25121	.74412	-.08959	.00907	.000084	0
0	0	0	0	0	0	0	0	0	0	0	388	7.225	.28301	.85915	-.10545	.00677	.00108	0
0	0	0	0	0	0	0	0	0	0	0	389	10.274	.28048	.97116	-.10166	.00537	.00138	0
0	0	0	0	0	0	0	0	0	0	0	390	14.917	.90557	-.01249	.00533	.00040	.00000	0
0	0	0	0	0	0	0	0	0	0	0	391	20.000	-.0018	.31735	.00911	0	2.000	0
0	0	0	0	0	0	0	0	0	0	0	392	30.000	-.002050	.00911	-.022841	0	0	0
0	0	0	0	0	0	0	0	0	0	0	393	38.383	-.00166	.00537	-.024634	0	0	0
0	0	0	0	0	0	0	0	0	0	0	394	44.917	.90557	-.01249	.00533	.00040	.00000	0
0	0	0	0	0	0	0	0	0	0	0	395	50.000	-.00166	.00537	-.024634	0	0	0

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION. (36)= E26 T11 C (Z/D)=.044, RUN NG. 39

TEST NO.	RUN.LG	ALPHA C	CL	CX	CPM	CYM-STAB	CRM-STAB (DP/Q1B IL/D)	
MACH NO.	RELT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CRM.BODY	CRM.BODY	(X CP/D)
1204	39.390	-0.002	.00159	.47186	.01525	.01263	-0.00069	0 .00336
681	2.000	-0.020	.00157	.47186	-.02467	.01263	-0.00069	.47186 0 -0
0	391	-1.042	-.07101	.50787	.05692	.00695	.00005	0 -.13982
0	3.000	-0.008	-.08024	.50650	-.01153	.00694	.00018	.50787 -.17829
0	392	-2.064	-.09857	.54022	.07247	.00367	.00043	0 -.18246
0	3.000	-0.004	-.11796	.53632	-.00569	.00366	.00056	.54022 -.19571
0	393	-3.092	-.13374	.57677	.08850	.00179	.00064	0 -.23187
0	3.000	-0.002	-.16465	.56872	-.00254	.00176	.00074	.57677 -.22445
0	394	-5.159	-.21667	.70137	.13274	.00046	.00103	0 -.30893
0	2.000	.003	-.27885	.67905	.00205	.00036	.00107	.70137 -.24112
0	395	-7.237	-.30633	.86047	.18627	-.00247	.00197	0 -.35601
0	2.000	.010	-.41227	.81504	.00952	-.00270	.00165	.86047 -.24517
0	396	-10.275	-.27474	1.02123	.18442	-.00301	.00250	0 -.26903
0	2.000	.012	-.45247	.95586	.01173	-.00341	.00192	1.02123 -.29536

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SID 62-753

NAA SISD SUPersonic AERO Laboratory TEST DATA PRINTOUT. USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(36)= E26 T11 C (Z/D)=.044, RUN NO. 39

TEST NO. RUN. LOG ALPHA C CL CX CPM CYM. STAB CRM. STAB (DP/2) B (L/D)  
MACH NO. REIT YAW C (CN) BODY (CA) BODY (CY) BODY CYM. BODY CRM. BODY CO (X CP/D)

1204	39.397	1.039	.07528	-0.50962	-0.02318	-0.01129	.00574	.00026	0	.19231	
681	2.000	-0.011	.08451	.50817	-0.01336	-0.00690	-0.0008	.50962	-0.07107		
0	3.000	-.009	2.061	.10467	.54427	-.03664	.00574	.00026	0	.14773	
0	2.000	-.010	.17356	.57310	-.01209	.00574	.00038	.00007	0	.24485	
0	3.000	-.011	.14241	.58163	-.005156	.00574	.00026	.00005	0	.16764	
0	2.000	-.012	.28890	.68295	-.01436	.00590	.00002	.00002	.70615	-.19716	
0	4.00	5.157	.22635	.70615	-.08922	.00597	.00004	.00004	0	.32054	
0	3.000	-.011	.39032	.82193	-.01403	.00778	.00021	.00054	1.04127	-.21548	
0	3.000	-.008	.47128	.97282	-.01071	.00075	.00054	.00075	0	.27873	
0	4.02	10.275	.29023	1.04127	-.12451	.00655	.00174	0	0	.27873	
0	3.000	-.008	.47128	.97282	-.01071	.00075	.00054	.00075	0	.25498	

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JGB NJ. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION.. (33)= E23 T11 C (Z/D)=.044, RUN NO. 40

TEST NO.	RUN LOC	ALPHA C	CL	CX	CPM	CYN. STAB	CRM. STAB	DP/Q18 (L/0)	MACH NO.	REIT	YAW C	(CN)B6DY	(CA)B6DY	CYN. BODY	CRM. BODY	CD	(X CP/D)			
1204	40.405	.0008	.01565	.74063	.01966	.00189	.00157	0	1204	.406	-1.035	-0.01182	.74705	.03418	.00242	.00130	0	.02113		
1575	2.000	.008	.01575	.74063	.00190	.00189	.00156	0	1575	.407	-2.077	-0.03792	.76094	.00221	.00227	.00122	.00060	.00060		
0	2.000	.008	.02531	.74671	.00168	.00240	.00134	0	0	.408	-3.116	-.05907	.78164	.06119	.00240	.00098	0	-.07557		
0	2.000	.009	0	0	0	0	0	0	0	2.000	.007	-.17647	.81270	.00060	.00305	.00133	.00117	0	-.37609	
0	2.000	.008	0	0	0	0	0	0	0	2.000	.008	-.10146	.77727	.00158	.00235	.00111	.00279	.00157	-.31382	
0	2.000	.008	0	0	0	0	0	0	0	2.000	.009	-.06547	.75907	.00221	.00227	.00122	.00060	.00060		
0	2.000	.007	0	0	0	0	0	0	0	2.000	.007	-.17647	.81270	.00060	.00305	.00133	.00117	0	-.12379	
0	2.000	.008	0	0	0	0	0	0	0	2.000	.008	-.10146	.77727	.00158	.00235	.00111	.00279	.00157	-.33113	
0	2.000	.008	0	0	0	0	0	0	0	2.000	.008	-.23499	.85301	.00117	.00279	.00157	.87588	-.31199	0	-.15769
0	2.000	.008	0	0	0	0	0	0	0	2.000	.008	-.14682	.93107	.00157	.00366	.00066	.000388	.000688	0	-.38028

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) J08 NO. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION.. (33)= E23 T11 C (Z/D)=.044, RUN NO. 40

TEST NO. RUN.LOG ALPHA C CL CX CPM CYM-STAB CRM-STAB (DP/2)B (L/D)

MACH NO. REIT YAW C (CN) BODY (CA) BODY (CY) BODY CRM-BODY CRM-BODY CD (X :P/D)

1204	40.412	1.052	.04423	.75870	.00571	.00235	.00133	0	.05830
1575	2.000	.007	.05815	.75776	.00124	.00237	.00129	.75870	-.13487
0	413	2.092	.06634	.77683	-.00529	.00300	.00135	0	.08540
0	2.000	.008	.09464	.77390	.00093	.00305	.00124	.77683	-.19433
0	414	3.130	.08618	.79514	-.01939	.00298	.00127	0	.11215
0	2.000	.005	.1324	.78908	-.00022	.00305	.00111	.79514	-.20145
0	415	5.202	.12341	.84666	-.03934	.00378	.00167	0	.14576
0	2.000	-.003	.1996	.83198	-.00165	.00392	.00132	.84666	-.22961
0	416	7.275	.14764	.89884	-.05073	.00327	.00172	0	.16426
0	2.000	-0	.26026	.87291	-.00269	.00346	.00123	.89884	-.26749
0	418	10.382	.16545	.96242	-.05307	.00442	.00110	0	.17191
0	3.000	-.007	.33615	.91686	-.00648	.00455	.00029	.96242	-.33210

NAA SISD SUPersonic AERO LABORATORY TEST DATA PRINTOUT. USE EDPM PROGRAMS 2K178+6241 JGB NO.(3509-31)

SAL NG. 201 (X/D)=.61. THE TA=0, CONFIGURATION..(37)= E29 T11 C (Z/D)=.044, RUN NO. 41

TEST V3. RUN.LOG ALPHA C CL CX CPM SYM-STAB CRM-STAB (DP/J)B (L/C)

MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM.BODY CD IX CP/DI

1204	41.419	.053	.06994	.75771	-.00915	.00475	.00096	0	.09231
1575	2.000	.009	.07064	.75765	.00026	.00475	.00096	.75771	-0
0	420	-991	.03393	.74581	.01422	.00417	.00089	0	.04550
0	2.000	.009	.02103	.74629	.00051	.00416	.00096	.74581	.27518
0	421	-2.033	.00278	.75270	.03509	.00310	.00081	0	.00369
0	2.000	.010	-.02392	.75233	.00184	.00307	.00092	.75270	-.52717
0	422	-3.069	-.02356	.76848	.05466	.00222	.00101	0	-.03065
0	2.000	.013	-.06467	.76612	.00380	.00217	.00113	.76848	-.28596
0	423	-5.144	-.06616	.80976	.08418	.00117	.00128	0	-.08170
0	2.000	.011	-.13848	.80057	.00355	.00165	.00144	.80976	-.25649
0	425	-10.358	-.15257	.95973	.13532	.00432	.00115	0	-.15897
0	2.000	.010	-.32261	.91667	.00112	.00404	.00191	.95973	-.31556

NAA SISD SUPersonic AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JGB NO.(3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(37)= E29 T11 C (Z/D)=.044, RUN NO. 41

TEST NO.	RUN.IBG	ALPHA C	CL	CX	CPM	CYH-STAB	CRM-STAB	(DP/J18 (L/D))
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYH.BODY	CRM.BODY	(X CP/D)
1204	41.426	1.103	.10941	.78578	-.03198	.00400	.00123	0 .13923
1575	2.000	.008	.12451	.78353	.00013	.00402	.00116	.78578 -.07624
0	.427	2.147	.13670	.81892	-.04683	.00218	.00123	0 .16693
0	3.000	-.003	.16727	.81322	-.00033	.00223	.00115	.81892 -.11612
3	.428	3.190	.15930	.85356	-.05777	.00359	.00128	0 .18663
0	3.000	.007	.20653	.84337	-.00001	.00365	.00108	.85356 -.15060
0	.429	5.269	.19219	.92232	-.07434	.00671	.00166	0 .20838
0	2.000	-.008	.27607	.90078	-.00211	.00683	.00104	.92232 -.19716
0	.430	7.336	.20108	.98847	-.07687	.00575	.00137	0 .20343
0	2.000	-.001	.32563	.95471	-.00390	.00588	.00063	.98847 -.24493
0	.431	10.432	.19402	1.05001	-.06348	.00447	.00131	0 .18478
0	2.000	-.001	.38090	.99753	-.00414	.00463	.00048	1.05001 -.32810

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SID 62-753

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EJPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(34)= E24 T11 C (Z/D)=.044, RUN NO. 42

TEST N3. RUN. LOG ALPHA C CL CX CPM CYM-STAB CRM-STAB (DP/Q)B (L/C)  
MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM-BODY CRM-BODY CD (X CP/D)

1204	42.432	.007	.01681	.71136	.01657	.00322	.00091	0	.02363		
1575	2.000	.070	.01689	.71136	.00151	.00322	.00091	.71136	-0		
0	0	.433	-1.036	-0.01824	.72560	.00339	.00091	0	-.02514		
0	2.000	.009	-.03135	.072515	.00134	.00338	.00097	.72560	-.34254		
0	0	.434	-2.075	-.04512	.74975	.05837	.00194	.00102	0	-.06018	
A-72	0	2.000	.012	-.07224	.74762	.00345	.00190	.00109	.74975	-.25733	
0	0	.435	-3.110	-.06572	.77339	.07339	.00124	.00112	0	-.08498	
0	0	2.000	.014	-.10757	.76869	.00513	.00117	.00119	.77339	-.24221	
0	0	.436	-5.183	-.10215	.82396	.09824	.00117	.00130	0	-.12397	
C	2.000	.014	-.17615	.81137	.00487	.00104	.00140	.00212	.00117	0	-.14793
0	0	.437	-7.257	-.13084	.88444	.11786	.00212	.00117	0	-.25494	
0	0	2.000	.014	-.24149	.86083	.00427	.00195	.00143	.00064	0	-.27882
0	0	.438	-10.370	-.15753	.95861	.13133	.00461	.00070	.00442	.00146	-.33184
0	0	3.000	-.007	-.32748	.91461	-.00070	-.00070	-.00070	-.00070	0	-.16433

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SID 62-753

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JGB NJ.(3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(34)= E24 T11 C (Z/D)=.044, RUN NO. 42

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB (DP/Q)B	(L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM.BODY	CRM.BODY	(X CP/D)
1204	42.439	1.049	.05042	.73824	-.00469	.00273	.00145	0 .06829
1575	2.000	.010	.06392	.73719	.00219	.00275	.00140	.73824 -.02923
0	.440	2.087	.07238	.76369	-.01627	.00262	.00138	0 .09478
0	2.000	.011	.10014	.76055	.00267	.00267	.00129	.76369 -.11337
0	.441	3.0124	.09305	.78920	-.02866	.00245	.00127	0 .11790
0	2.000	.010	.13591	.78296	.00211	.00251	.00114	.78920 -.14560
0	.442	5.0195	.12783	.84332	-.05010	.00395	.00128	0 .15159
0	2.000	-.006	.20366	.82828	-.00083	.00404	.00091	.84332 -.18505
0	.443	7.0270	.15490	.90574	-.06525	.00374	.00123	0 .17102
0	2.000	-.004	.26824	.87886	-.00131	.00386	.00075	.90574 -.22259
0	.445	10.0378	.17225	.97606	-.06754	.00370	.00115	0 .17647
0	2.000	-.002	.34522	.92938	-.00386	.00385	.00046	.97606 -.29595

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)  
 SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION.. (35)= E25 T11 C (Z/D)=.044, RUN NO. 43  
 TEST NO. RUN LOG ALPHA C CL CX CPM CYM. STAB CRM. STAB (DP/Q)B (L/D)  
 MACH NO. REIT YAW C (CN) BODY (CA) BODY (CY) BODY CRM.BODY CRM.BODY CD (X CP/D)

1204	43.446	.008	.01889	.70422	.01427	.00392	.00105	0	.02683
1575	2.000	.007	.01899	.70422	.00012	.00392	.00105	.70422	-0
0	.447	-1.033	-0.01766	.71936	.04179	.00245	.00107	0	-.02455
0	2.000	.010	-.03062	.71893	.00222	.00243	.00111	.71936	-.27831
0	.448	-2.066	-.04279	.74589	.06287	.00234	.00097	0	-.05737
0	2.000	.010	-.06964	.74387	.00249	.00230	.00105	.74589	-.17721
0	.449	-3.097	-.06202	.78005	.07996	.00136	.00121	0	-.07951
0	2.000	.013	-.10407	.77556	.00456	.00129	.00128	.78005	-.16958
0	.450	-5.167	-.09620	.83804	.10595	.00095	.00135	0	-.11479
0	2.000	.013	-.17127	.82598	.00501	.00083	.00143	.83804	-.20360
0	.451	-7.243	-.12667	.90101	.12745	.00130	.00131	0	-.14059
0	2.000	.012	-.23925	.87785	.00419	.00112	.00146	.90101	-.23872
0	.452	-10.372	-.15895	1.00215	.14284	.00522	.00063	0	-.15861
0	2.000	.011	-.33675	.95717	.00073	.00502	.00156	1.00215	-.31090

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## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO.	201	(X/D)=.61, THE TA=0,	CONFIGURATION..(35)= E25 T11 C (Z/D)=.044,	RUN NO. 43					
TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB (DP/Q)B (L/D)		
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM. BODY	CRM. BODY	CD	(X CP/D)
1204	43.453	1.042	.04719	.73242	-.00690	.00200	.00116	0	.06443
1575	2.000	.009	.06050	.73144	.00206	.00202	.00113	.73242	.03602
0	.454	2.073	.06709	.76594	-.02170	.00252	.00126	0	.08759
0	2.000	.010	.09475	.76302	.00228	.00257	.00117	.76594	-.02666
0	.455	3.105	.08504	.79844	-.03424	.00260	.00123	0	.10650
0	2.000	.009	.12816	.79267	.00182	.00266	.00109	.79844	-.07072
0	.456	5.178	.12006	.85908	-.05592	.00341	.00118	0	.13975
0	2.000	.007	.19708	.84474	.00010	.00350	.00087	.85908	-.13767
0	.457	7.256	.15112	.92721	-.07379	.00354	.00132	0	.16299
0	2.000	-.002	.26701	.90070	-.00197	.00368	.00087	.92721	-.18523
0	.458	10.383	.17734	1.02190	-.07751	.00555	.00139	0	.17354
0	2.000	-0	.35858	.97322	-.00453	.00571	.00037	1.02190	-.27441

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO.	201	(X/D)=.61, T-ETA=0,	CONFIGURATION..(36)= E26 T11 C (Z/D)=.044,	RUN NO. 44
TEST NO.	3UN.LGG	ALPHA C CL	CX CPM CY M.STAB CRM.STAB (DP/Q)3 (L/C)	
MACH NO.	REIT	YAW C (CN)BODY (CA)BODY (CY)BODY CRM.BODY CD (X CP/D)		
1204	44.459	.003 .01807	.72199 .01191 .00086 .00150 0 .02503	
1575	2.000	.010 .01811	.72199 .00334 .00086 .00150 .72199 -0	
0	.460	-1.029 -.01132	.73661 .03842 -.00023 .00128 0 -.01537	
0	2.000	.009 -.02454	.73629 .00383 -.00026 .00128 .73661 -.36475	
0	.461	-2.059 -.04029	.76704 .06717 -.00179 .00136 0 -.05253	
0	3.000	.007 -.06782	.76509 .00426 -.00184 .00130 .76704 -.11597	
0	.462	-3.085 -.05608	.80685 .08539 -.00107 .00134 0 -.06951	
0	2.000	.008 -.09942	.80266 .00426 -.00114 .00129 .80685 -.10633	
0	.463	-5.147 -.08175	.87559 .11021 -.00144 .00155 0 -.09337	
0	2.000	.010 -.15997	.86473 .00530 -.00158 .00141 .87559 -.15889	
0	.464	-7.236 -.12056	.94508 .13518 -.00130 .00176 0 -.12756	
0	2.000	.009 -.23861	.92238 .00502 -.00151 .00158 .94508 -.21355	
0	.465	-10.378 -.15954	.105979 .15364 -.00108 .00206 0 -.15053	
0	2.000	.007 -.34781	.101373 .00412 -.00143 .00183 1.05979 -.29650	

NAA SISD SUPersonic AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB N3. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION.. (36)= E26 T11 C (Z/D)=.044, RUN NO. 44

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q)B (L/D)
MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYM. BODY	CRM. P Y	CD (X CP/D)
1204	44.466	1.037	.04205	.74577	-.00458	-.00043	.00150	0 .05638
1575	2.000	.008	.05553	.74489	.00378	-.00040	.00150	.74577 .06265
0	.467	2.062	.06347	.78946	-.02636	.00027	.00113	0 .08039
0	2.000	.006	.09182	.78667	.00210	.00031	.00112	.78946 .05406
0	.468	3.088	.07679	.82697	-.03901	.00080	.00119	0 .09286
0	2.000	.006	.12122	.82163	.00175	.00086	.00114	.82697 .01008
0	.469	5.157	.10642	.89319	-.05851	.00041	.00110	0 .11915
0	3.000	.001	.18626	.88001	-.00001	.00051	.00105	.89319 -.08798
0	.470	7.245	.14304	.97637	-.07866	.00224	.00132	0 .14650
0	2.000	-.001	.26500	.95054	-.00138	.00239	.00102	.97637 -.15533
0	.471	10.389	.17768	1.09144	-.08551	.00731	.00201	0 .16280
0	2.000	-.008	.37155	1.04152	-.00259	.00755	.00066	1.09144 -.25652

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NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) J08 NO.(3509-31)

SAL NO. 201 (X/D)=.61, THE TA=0, CONFIGURATION. (38)= E27 T11 C (Z/D)=.044, RUN NO. 45  
TEST NO. RUN LOG ALPHA-C CL CX CPM CYM-STAB CRM-STAB (DP/Q)B (L/D)  
MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM-BODY CD (X CP/D)

1204	45.472	.352	.10793	.58935	-.02880	.00610	-.00065	0	.18313
681	3.000	-.013	.10846	.58925	-.01416	.00610	-.00066	.58935	-0
0	0	.473	-.990	.03726	.55636	.00524	.00483	-.00025	0
0	0	2.000	-.009	.02764	.55692	-.31050	.00483	-.00017	.55636 .08691
0	0	.474	-2.034	-.02721	.54138	.02922	.00263	.00017	0 -.05026
0	0	3.000	-.002	-.04641	.54007	-.00374	.00262	.00027	.54138 -.49251
D	D	.475	-3.094	-.12144	.57958	.07107	.00035	.00065	0 -.20954
0	0	2.000	.004	-.15254	.57218	.00276	.00031	.00066	.57958 -.30910
0	0	.476	-5.172	-.23019	.70275	.13047	-.00017	.00115	0 -.32756
0	0	2.000	.008	-.29259	.67914	.00626	-.00027	.00113	.70275 -.26621
0	0	.477	-7.214	-.26004	.80912	.15398	-.00230	.00173	0 -.32139
0	0	2.000	.012	-.35957	.77007	.01059	-.00250	.00143	.80912 -.27600
0	0	.478	-10.262	-.26201	.91549	.16024	-.00241	.00224	0 -.28619
0	0	2.000	.013	-.42088	.85418	.01154	-.00277	.00177	.91549 -.31857

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SID 62-753

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) J08 NO.(3509-31)

SAL NO. 201 (X/D)=.61, T4ETA=0, CONFIGURATION..(38)= E27 T11 C (Z/D)=.044, RUN NO. 45

TEST V3. RUN LOG ALPHA C CL CX CPM CRM. STAB CRM. STAB (DP/Q)B (L/J)

MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM.BODY CRM.BODY CD (X CP/D)

1204	45.479	1.091	.16872	.63508	-.05788	.00544	.00024	0	.26567	
681	3.000	-0.008	.18078	.63175	-.00994	.00544	.00013	.63508	-.13607	
0	0	.480	2.120	.20422	.68823	-.07199	.00406	.00043	0	.29674
0	3.000	-.307	.22954	.68021	-.00806	.00408	.00028	.68823	-.16598	
0	481	3.148	.23064	.72436	-.07881	.00472	.00040	0	.31841	
0	3.000	-.009	.27006	.71061	-.01016	.00474	.00014	.72436	-.20241	
0	482	5.199	.27044	.80432	-.08704	.00587	.00074	0	.33623	
0	2.000	-.011	.34220	.77651	-.01295	.00591	.00021	.80432	-.25579	
0	483	7.240	.28759	.88376	-.09100	.00464	.00091	0	.32541	
0	3.000	-.009	.39665	.84048	-.00997	.00472	.00032	.88376	-.28733	
0	484	10.278	.26809	.96513	-.07930	.00378	.00110	0	.27778	
0	3.000	-.006	.43596	.90182	-.00738	.00391	.00041	.96513	-.33709	

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SID 62-753

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)  
 SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(39)= E28 T11 C (Z/D)=.044, RUN NO. 46  
 TEST NO. RUN LOG ALPHA C CL CX CPM CYM-STAB CRM-STAB (D/D/Q)8 (L/D)  
 MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CYM-BODY CRM-BODY CD (X CP/D)

1204	46.485	.069	.13867	.54496	-.03963	.00402	-.00019	0	.021501
681	3.000	-.005	.13945	.64480	-.00677	.00402	-.00023	.64496	0
0	.486	-.963	.08779	.60258	-.01333	.00349	.00002	0	.14569
0	3.000	-.004	.07765	.50397	-.00572	.00349	.00008	.60258	-.09606
0	.487	-2.008	.02840	.56406	.00183	.00058	.00038	0	.05035
0	2.000	.002	.00862	.56470	.00099	.00056	.00040	.56406	2.06005
0	.488	-3.063	-.06507	.56416	.00611	.00188	.00069	0	-.11533
0	2.000	.005	-.09511	.55988	.00203	.00184	.00079	.56416	-.38103
0	.489	-5.153	-.19910	.68650	.11860	-.00101	.00155	0	-.29003
0	2.000	.012	-.25994	.66585	.01006	-.00115	.00145	.68650	-.26645
0	.490	-7.202	-.24139	.79420	.14615	-.00170	.00206	0	-.30394
0	2.000	.014	-.33903	.75768	.01171	-.00194	.00183	.79420	-.27726
0	.491	-10.253	-.25003	.90070	.15506	-.00137	.00232	0	-.27759
0	2.000	.014	-.40633	.84183	.01188	-.00176	.00204	.90070	-.31956

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SID 62-753

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JGB NO.(3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION.. (39)= E2B T11 C (Z/D)=.044, RUN NO. 46

TEST V3. RUN LOG ALPHA C CL CX CP CRM-STAB (DP/Q)B (L/D)  
MACH NO. REIT YAW C (CN) BODY (CA) BODY (CY) BODY CRM.BODY CD (X CP/D)

1204	46.492	1.102	.18613	.68930	-.06148	.00434	.00076	0	.27003
681	2.000	-.002	.19935	.68559	-.00514	.00436	.00067	.68930	-.15026
0	4.93	2.132	.22228	.73243	-.07563	.00326	.00078	0	.30349
0	2.000	.004	.24938	.72365	.00074	.00329	.00066	.73243	-.17918
0	4.94	3.159	.24713	.76530	-.08258	.00234	.00106	0	.32292
0	2.000	.008	.28893	.75052	.00416	.00239	.00093	.76530	-.20991
3	4.95	5.207	.27574	.83014	-.08335	.00062	.00128	0	.33216
0	2.000	.007	.34993	.80169	.00458	.00073	.00122	.83014	-.27100
0	4.96	7.243	.28262	.89391	-.08115	.00289	.00145	0	.31616
0	2.000	-.002	.39304	.85115	-.00061	.00305	.00107	.89391	-.30824
0	4.97	10.275	.25771	.94962	-.06840	.00409	.00177	0	.27138
0	2.000	-0	.42293	.88844	-.00321	.00434	.00101	.94962	-.35585

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CONFIDENTIAL  
SID 62-753

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(37)= E29 T11 C (Z/D)=.044, RUN NO. 47

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q)B	(L/D)
MACH NO.	REIT	YAW C	(CN) BODY	(CA) BODY	(CY) BODY	CYM.BODY	CRM.BODY	CD	(X CP/D)

1204	47.499	.082	.16468	.69466	-.04987	.00286	.00182	0	.23706	
681	3.000	-.005	.16567	.69442	-.00598	.00287	.00182	.69466	-0	
0	.500	-.947	.13043	.65254	-.03817	.00197	.00178	0	.19988	
0	2.000	-.005	.11963	.65460	-.00505	.00195	.00181	.65254	-.05018	
A-82	0	.501	-1.986	.08030	.59848	-.02515	.00100	.00162	0	.13416
0	3.000	-.002	.05951	.60091	-.00252	.00094	.00165	.59848	.25684	
0	.502	-3.037	-.00466	.57222	.01260	.00264	.00130	0	-.00815	
0	2.000	-.001	-.03497	.57117	-.00145	.00257	.00144	.57222	-.96841	
0	.503	-5.132	-.15963	.66363	.09774	-.00114	.00243	0	-.24054	
0	2.000	.010	-.21835	.64669	.00841	-.00135	.00232	.66363	-.29269	
0	.504	-7.188	-.21442	.77637	.13111	-.00173	.00314	0	-.27618	
0	2.000	.012	-.30986	.74345	.01016	-.00211	.00290	.77637	-.29244	
0	.505	-10.254	-.25043	.88424	.15120	-.00289	.00346	0	-.28321	
0	2.000	.012	-.40380	.82555	.01161	-.00346	.00289	.88424	-.32552	

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NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 231 (X/D)=.61, THE TA=0, CONFIGURATION..(37)= E29 T11 C (Z/D)=.044, RUN NO. 47

TEST NO. RUN LOG ALPHA C CL CX CPM CRM STAB CRM STAB (DP/Q)B (L/D)

MACH NO. REIT YAW C (CN) BODY (CA) BODY ((C) BODY CRM BODY CRM BODY CD ((X CP/D)

1204	47.506	1.108	.19469	.73301	-.06241	.00497	.00142	0	.26560
681	3.000	-.008	.20883	.72911	-.00962	.00500	.00133	.73301	-.15750
0	507	2.135	.22266	.76655	-.07298	.00510	.00134	0	.29048
0	3.000	-.009	.25106	.75772	-.01033	.00515	.00115	.76655	-.18651
0	508	3.161	.24598	.79585	-.07955	.00355	.00143	0	.30908
0	3.000	-.005	.28949	.78108	-.00682	.00363	.00123	.79585	-.21648
0	509	5.208	.26882	.85838	-.07673	.00422	.00182	0	.31317
0	3.000	-.006	.34561	.83044	-.00795	.00437	.00143	.85838	-.28227
0	510	7.241	.27032	.89673	-.07055	.00188	.00207	0	.30145
0	3.000	-.004	.38116	.85552	-.00434	.00213	.00181	.89673	-.32615
0	511	10.265	.23836	.94768	-.06027	.00254	.00164	0	.25152
3	3.000	-.004	.40338	.89005	-.00496	.00279	.00116	.94768	-.36351

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(40)= E30 T11 C (Z/D)=.044, RUN NO. 48

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM-STAB	CRM-STAB	(DP/Q)B	(L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM.BODY	CRM.BODY	CD	(X CP/D)

1204	48.512	.080	.14248	.62128	-.02883	.00329	.00035	0	.22934
681	3.000	-.006	.14335	.62108	-.00710	.00329	.00034	.62128	-0
0	.513	-.947	.10698	.58466	-.01424	.00046	.00062	0	.18298
0	3.000	-.002	.09731	.58635	-.00151	.00045	.00062	.58466	-.19849
0	.514	-1.973	.07989	.53288	-.01138	-.00179	.00092	0	.14992
0	3.000	.003	.06150	.53532	.00349	-.00182	.00086	.53288	-.34191
0	.515	-3.019	.00759	.47905	.01375	-.00530	.00154	0	.01584
0	2.000	.016	-.01765	.47878	.01573	-.00538	.00126	.47905	-1.02419
0	.516	-5.135	-.18028	.61671	.11209	-.00754	.00248	0	-.29233
0	2.000	.019	-.23474	.59810	.02021	-.00773	.00180	.61671	-.24461
0	.517	-7.191	-.24091	.75244	.15427	-.00578	.00293	0	-.32017
3	2.000	.019	-.33318	.71637	.01898	-.00610	.00218	.75244	-.24157
0	.518	-10.249	-.26069	.90148	.17565	-.00349	.00291	0	-.28917
0	2.000	.019	-.41689	.84073	.01697	-.00395	.00225	.90148	-.27739

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SID 62-753

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 (X/D)=.61, THE TA=0, CONFIGURATION..(40)= E30 T11 C (Z/D)=.044, RUN NO. 48

TEST NO. RUN.LOG ALPHA C CL CX CPM CYN. STAB CRM. STAB (DP/Q)B (L/D)

MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM.BODY CD (X CP/D)

1204	48.519	1.110	.19170	-66391	-.05662	.00297	.00068	0	.28874
681	3.000	-.005	.20453	.66008	-.00619	.00298	.00062	.66391	-.19115
0	.520	2.134	.22532	.70183	-.07746	.00385	.00076	0	.32105
0	2.000	-.002	.25129	.69295	-.00442	.00388	.00062	.70183	-.18042
0	.521	3.158	.24551	.74126	-.08266	.00294	.00096	0	.33121
0	2.000	-.002	.28596	.72661	-.00105	.00299	.00080	.74126	-.23913
0	.522	5.209	.28108	.82725	-.08782	.00101	.00121	0	.33978
0	2.000	-.004	.35501	.79832	.00183	.00111	.00111	.82725	-.26369
0	.523	7.250	.29598	.90953	-.08894	.03212	.00131	0	.32542
0	3.000	-.001	.40838	.86491	-.00261	.00227	.00103	.90953	-.29901
0	.524	10.293	.27773	.99705	-.07551	.00235	.00154	0	.27855
3	3.000	-.002	.45138	.93139	-.00314	.00259	.00109	.99705	-.35193

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. USE EDPM PROGRAMS 2K178+624) JGB NO.(3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(41)= E31 T11 C (Z/D)=.044, RUN NO. 49

TEST NO.	RUN LOG	ALPHA C	C1	CX	CPM	CYM-STAB	CRM-STAB	(DP/Q)B	(L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM-BODY	CRM-BODY	CD	(X CP/D)

1204	49.525	.102	.18077	.67868	-.04110	.00918	-.00074	0	.26636
681	2.000	-.028	.18198	.67836	-.02738	.00918	-.00076	.67868	-0
0	526	-.922	.16250	.63357	-.04206	.01025	-.00108	0	.25648
0	2.000	-.030	.15228	.63610	-.02972	.01027	-.00091	.63357	-.15002
0	527	-.1947	.14321	.56520	-.04696	.01124	-.00123	0	.25339
0	2.000	-.030	.12393	.56973	-.03055	.01127	-.00085	.56520	-.02881
0	528	-2.983	.08745	.49333	-.02778	.01191	-.00164	0	.17726
0	2.000	-.031	.06166	.49721	-.03226	.01198	-.00102	.49333	.19525
0	529	-5.105	-.13319	.54589	.08784	.00597	-.00026	0	.24399
0	2.000	-.015	-.18123	.53187	-.01546	.00597	.00027	.54589	-.25444
0	530	-7.172	-.21833	.70058	.14452	.00171	.00068	0	.31164
0	2.000	-.005	-.30407	.66785	-.00485	.00162	.00088	.70058	-.23137
0	531	-10.233	-.25134	.86239	.17652	-.00073	.00147	0	.29145
0	3.000	.001	-.40053	.80403	.00135	-.00098	.00132	.86239	-.25761

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT..(USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(41)= E31 T11 C (Z/D)=.044, RUN NO. 49

TEST NO. RUN.LOG ALPHA C CL CX CPM CYM.STAB CRM.STAB (DP/Q1B (L/D))

MACH NO. REIT YAW C (CN) BODY (CA) BODY (CY) BODY CRM.BODY CRM.BODY CD (X CP/D)

1204	49.532	1.127	.20888	.71715	-.05195	.00782	-.00042	0	.29127
681	2.000	-.024	.22295	.71290	-.02400	.00781	-.00058	.71715	-.23629
0	533	2.151	.24001	.75102	-.06979	.00750	.00018	0	.31957
0	2.000	-.023	.26802	.74149	-.02258	.00750	-.00010	.75102	-.22787
0	534	3.173	.26451	.78423	-.08473	.00639	.00022	0	.33729
0	2.000	-.027	.30751	.76839	-.02469	.00639	-.00013	.78423	-.22450
0	535	5.221	.29096	.85642	-.08474	.00480	.00047	0	.33974
0	2.000	-.033	.36766	.82640	-.02807	.00482	.00004	.85642	-.28363
0	536	7.261	.29945	.93285	-.07983	.00445	.00083	0	.32100
0	2.000	-.021	.41493	.88753	-.01876	.00452	.00026	.93285	-.32350
0	537	10.301	.27471	1.00539	-.06163	.00379	.00106	0	.27324
0	2.000	-.013	.46003	.94008	-.01265	.00392	.00037	1.00539	-.38114

## NAA SISD SUPersonic AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(42)= E32 T11 C (Z/D)=.044, RUN NO. 50

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q)B	(L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM.BODY	CRM.BODY	CD	(X CP/D)

1204	50.538	.0123	.21769	.72181	-.05334	.00290	-.00020	0	.30159
681	2.000	-.011	.21924	.72134	-.01025	.00290	-.00021	.72181	-0
0	.539	-.897	.21431	.66887	-.06612	.00031	.00010	0	.32041
0	2.000	-.008	.20382	.67214	-.00595	.00031	.00010	.66887	-.14051
0	.540	-1.922	.19114	.60042	-.06581	-.00134	.00026	0	.31835
0	2.000	-.003	.17090	.60649	-.00092	-.00134	.00022	.60042	-.06876
0	.541	-2.955	.14011	.52312	-.04722	-.00060	.00013	0	.26783
0	2.000	-.002	.11296	.52964	-.00110	-.00061	.00010	.52312	.31437
0	.542	-5.061	-.06519	.47499	.06006	-.00273	.00092	0	-.13724
0	2.000	.005	-.10683	.46739	.00598	-.00280	.00068	.47499	-.24030
0	.543	-7.168	-.22853	.65994	.15424	-.00696	.00245	0	-.34629
0	2.000	.014	-.30908	.62627	.01550	-.00721	.00157	.65994	-.20011
0	.544	-10.222	-.24525	.83924	.18041	-.00576	.00311	0	-.29223
	2.000	.018	-.39026	.78241	.01784	-.00522	.00224	.83924	-.23594

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NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(42)= E32 T11 C (Z/D)=.044, RUN NO. 50

TEST NO.	RUN LOG	ALPHA C	CL	CX	CPM	CYM-STAB	CRM-STAB (DP/Q)B (L/D)	(X CP/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CA)BODY	(CY)BODY	CYM.BODY	CRM.BODY	CD
1204	50.545	1.145	.22805	.75971	-.04885	.00271	.00043	0 .30018
681	2.000	-.009	.24317	.75500	-.00866	.00271	.00037	.75971 -.27250
0	.546	2.166	.24746	.79005	-.05673	.00313	.00050	0 .31322
0	2.000	-.009	.27714	.78013	-.00929	.00315	.00038	.79005 -.28155
0	.548	3.188	.26957	.82407	-.06917	.00218	.00063	0 .32712
0	2.000	-.037	.31498	.80781	-.00718	.00221	.00050	.82407 -.27755
0	.549	5.234	.29822	.88622	-.07616	.00468	.00136	0 .33650
0	2.000	-.003	.37780	.85533	-.00150	.00479	.00093	.88622 -.30880
0	.550	7.273	.30208	.95134	-.06745	.00135	.00104	0 .31754
0	3.000	-0	.42007	.90545	-.00114	.00147	.00086	.95134 -.35463
0	.551	10.308	.27241	1.02863	-.05279	.00143	.00115	0 .26483
0	3.000	-.002	.45204	.96330	-.00278	.00162	.00087	1.02863 -.39946

SID 62-753

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)  
 SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(43)= E33 T11 C (Z/D)=.044, RUN NO. 51  
 TEST NO. RUN.LOG ALPHA C CL CX CPM CYM-STAB CRM-STAB (DP/Q)B (L/D)  
 MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM.BODY CRM.BODY CD (X CP/D)

1204	51.552	.001	.00898	.52107	.01356	.00551	-.00024	0	.01723
681	2.000	-.016	.00899	.52107	-.01615	.00551	-.00024	.52107	-0
0	553	-1.061	-.08557	.54685	.04923	.00104	.00077	0	-.15648
3	2.000	.004	-.09568	.54517	.00222	.00103	.00079	.54685	-.34616
0	554	-2.099	-.13645	.58721	.07023	-.00047	.00109	0	-.23236
3	2.000	.007	-.15786	.58132	.00548	-.00051	.00107	.58721	-.32730
0	555	-3.132	-.17506	.62733	.08505	-.00091	.00152	0	-.27906
0	2.000	.009	-.20907	.61683	.00718	-.00099	.00147	.62733	-.33302
3	556	-5.183	-.21741	.70091	.09844	-.00161	.00168	0	-.31018
0	2.000	.010	-.27983	.67841	.00897	-.00176	.00153	.70091	-.36490
3	557	-5.183	-.21781	.69773	.09846	-.00148	.00174	0	-.31217
0	2.000	.010	-.27994	.67521	.00845	-.00163	.00160	.69773	-.36441
0	558	-7.224	-.23667	.75717	.10104	-.00216	.00223	0	-.31258
3	2.000	.012	-.32998	.72141	.01066	-.00243	.00194	.75717	-.39999

NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. USE EDPM PROGRAMS 2K 178+624) JBB NO.(3509-31)

SAL NO. 201 (X/D)=.61, THETA=0, CONFIGURATION..(43)= E33 T11 C (Z/D)=.044, RUN NO. 51

TEST NO. RUN LOG ALPHA C CL CX CPM CRM-STAB CRM-STAB (DP/Q)B (L/D)

MACH NO. REIT YAW C (CN)BODY (CA)BODY (CY)BODY CRM.BODY CRM.BODY CD (X CP/D)

1204	51.559	-10.273	-.23600	.81415	.08691	-.00250	.00230	0	-.28988
681	2.000	.012	-.37739	.75902	.01103	-.00287	.00182	.81415	-.46821
0	.560	1.060	.09463	.55805	-.01501	.00667	.00011	0	.16957
0	2.000	-.018	.10493	.55620	-.01870	.00667	-.00001	.55805	-.23371
0	.561	2.098	.14731	.59587	-.03405	.00679	.00032	0	.24722
0	2.000	-.017	.16902	.59007	-.01759	.00680	.00007	.59587	-.25194
0	.562	3.132	.18817	.63511	-.04773	.00593	.00052	0	.29627
0	2.000	-.015	.22258	.62388	-.01573	.00595	.00019	.63511	-.27225
3	.563	5.184	.23338	.71449	-.05849	.00473	.00116	0	.32664
0	2.000	-.011	.29697	.69048	-.01169	.00482	.00073	.71449	-.31073
0	.564	7.226	.25241	.77332	-.05657	.00269	.00121	0	.32640
0	2.000	-.007	.34765	.73544	-.00765	.00282	.00086	.77332	-.35419
0	.565	10.371	.42851	.37099	-.12047	.00375	.00137	0	.49198
0	3.000	-.008	.57828	.77964	-.00890	.00394	.00067	.87099	-.34236

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINTOUT. (USE EDPM PROGRAMS 2K178+624) JOB NO. (3509-31)

SAL N3. 201 (X/C)=.61, THETA=0, CONFIGURATION.. (44)= E34 T11 C (Z/D)=.044, RUN NO. 52

TEST NO.	RUN#LG	ALPHA C	CL	CX	CPM	CYM. STAB	CRM. STAB	(DP/Q)B (L/D)
MACH NO.	REIT	YAW C	(CN)BODY	(CY)BODY	CYM.BODY	CRM.BODY	CD	(X CP/D)

1204	52.566	.003	.01058	.47569	.01212	.00495	-.00018	0 .02224
681	2.000	-.013	.01060	.47568	-.01313	.00495	-.00018	.47569 -0
0	567	-1.062	-.08717	.49562	.04688	.00243	.00067	0 -.17587
0	2.000	-.001	-.09634	.49392	-.00282	.00241	.00072	.49562 -.34896
0	568	-2.103	-.14372	.53612	.06883	-.00057	.00118	0 -.26807
A-92	0	2.000	.006	-.16329	.53049	.00461	-.00061	.00116 .53612 -.33141
0	569	-3.138	-.18578	.58602	.08455	-.00053	.00121	0 -.31702
0	2.000	.008	-.21758	.57497	.00623	-.00059	.00118	.58602 -.33766
0	570	-5.197	-.24124	.68442	.10395	-.00183	.00189	0 -.35247
0	2.000	.011	-.30223	.65976	.00939	-.00199	.00171	.68442 -.36212
0	571	-7.245	-.26865	.76054	.10851	-.00118	.00215	0 -.35324
3	2.000	.012	-.36240	.72060	.00960	-.00145	.00199	.76054 -.39807
0	572	-10.309	-.28688	.83930	.10125	-.00260	.00270	0 -.34181
0	2.000	.014	-.43242	.77443	.01290	-.00304	.00219	.83930 -.45465

SID 62-753

## NAA SISD SUPERSONIC AERO LABORATORY TEST DATA PRINT(OUT). USE EDPM PROGRAMS 2K178+624) JOB NO.(3509-31)

SA. 43. 201 (X/C)=.61, TETA=0, CONFIGURATION.. (44)= E34 T11 C (Z/D)=.044, RUN NO. 52

TEST NO. RUN.LOG ALPHA C CL CX CPM CRM.STAB CRM.STAB (DP/Q18 (L/D)

MACH NO. REIT YAW C ICN)BODY (CA)BODY (CY)BODY CRM.BODY CRM.BODY CD (X CP/D)

1204 52.573 1.059 .09371 .50816 -.01501 .00593 .00014 0 .18441

681 2.000 -.016 .10309 .50634 -.01611 .00593 .00003 .50816 -.24826

0 .574 2.103 .15612 .54131 -.03776 .00875 .00016 0 .28842

0 2.000 -.020 .17588 .53522 -.02144 .00875 -.00016 .54131 -.26143

0 .575 3.138 .19796 .59711 -.05006 .00721 .00024 0 .33153

0 2.000 -.317 .23034 .58538 -.01831 .00721 -.00015 .59711 -.28088

0 .576 5.199 .25689 .69802 -.06398 .00582 .00102 0 .36802

0 2.000 -.014 .31907 .67188 -.01457 .00589 .00049 .69802 -.31684

0 .577 7.248 .28568 .77902 -.06457 .00538 .00142 0 .36672

0 2.000 -.012 .38167 .73677 -.01312 .00551 .00073 .77902 -.35587

0 .578 10.310 .29668 .86174 -.04813 .00372 .00155 0 .34427

0 3.000 -.009 .44609 .79474 -.00941 .00394 .00086 .86174 -.42373

NORTH AMERICAN AVIATION, INC.



SPACE and INFORMATION SYSTEMS DIVISION

[REDACTED]

PLOTTED DATA

(Upon request, plotted data will be added when available.)

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SID 62-753

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